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ABSTRACT

This was the first phase of a continuing evaluation of a Community College Studies Program designed to provide educational opportunities for the academically under-prepared student. The subject college had always had a remedial program of some type, but it only recently conducted formal program evaluations. The most recent was during the 1967-68 academic year. Using a randomly-selected control group for comparison purposes, the study demonstrated that the effects of remedial efforts were virtually indistinguishable from those obtained in the regular college courses. As a result of those findings, it became necessary to make a choice--either to eliminate remedial efforts or to restructure them to produce measurable differences. The latter was chosen and long-range evaluation was included in the program. This culminated in the Community College Studies Program (CCS), begun in the 1969 fall term. Discussions of the evaluation design and procedure centered on: (1) selection of population, (2) selection of tests, and (3) selection of research design. The evaluation results were discussed according to (1) a 16 personality factor test, (2) a self-rating scale, (3) a deviation score, (4) the Florida Twelfth Grade Test, (5) attrition, (6) the distribution of grades, and (7) a college student questionnaire. Program organization and a detailed description of it were included in the appendix. (Author/AL)

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AN EVALUATION
OF THE
COMMUNITY COLLEGE STUDIES PROGRAM
FOR THE YEAR 1969-70

March 1971

John Losak and Neil Burns

MIAMI-DADE JUNIOR COLLEGE

JC 710 263

UNIVERSITY OF CALIF.
LOS ANGELES

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JUNIOR COLLEGE
INFORMATION

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John Losak and Neil Burns

March, 1971

INTRODUCTION

This report is the first phase of a continuing evaluation of the Community College Studies Program at Miami-Dade Junior College, North Campus, which is designed to provide educational opportunities for the academically underprepared student.

Miami-Dade has always had a remedial program of some type, but it is only during the last few years that formal evaluations of these programs have been conducted. The most recent evaluation was conducted during the academic year 1967-68*. Using a randomly selected control group for comparison purposes, the study demonstrated that the remedial efforts were virtually indistinguishable from results obtained if students merely went into the regular college courses. As a result of these findings, it became necessary to make one of two choices--either to eliminate remedial efforts, thereby permitting all students to select courses on their own--or to restructure the remedial program so that it would in fact produce measurable differences.

It was decided to continue searching for an effective remedial program and to include a long range evaluation as an integral part of the program. This search culminated in the development of the Community College Studies Program (CCS), which began operation in the Fall Term of 1969. Organized under one department chairman and consisting of a total involvement of the student along with a carefully selected faculty dedicated to the concept, the CCS Program differs considerably from the previous remedial attempts. A detailed description of the CCS Program is included in the Appendix.

*John G. Losak, "An Experiment Designed to Evaluate a Program Developed to Aid the Academically Underprepared Junior College Student"(unpublished Ph.D. dissertation, Florida State University, 1969).

PROCEDURE

SELECTION OF POPULATION

All students who earned a Total score of 149 or below (or an Aptitude score of 23 and below) on the Florida Twelfth Grade Test were designated as academically underprepared and included in the population of this study. At M-DJC, this score is equivalent to the twenty-fifth percentile.

Students were randomly assigned to one of three groups defined as follows:

1. Experimental Group (E) - 450* full-time (12 credit hours or more) students who comprised the Community College Studies Program.
2. Control Group 1 (C₁) - Full-time Students who were placed in English 090 and Orientation 101.
3. Control Group 2 (C₂) - Full-time Students who were placed in English 101 and Orientation 101.

The students in the two control groups were not aware that they were a part of an experiment, nor were the teachers of the C₂ group.

SELECTION OF TESTS

The tests were selected on the basis of their generally accepted reliability and validity, time considerations, and their ease of interpretation. After considerable review of the tests available and of the nature of the Community College Studies Program, tests in the following areas were recommended and accepted for use in the evaluation:

*The final number of students included in the evaluation was as follows:

E - 347 students
C₁ - 112 students
C₂ - 63 students

1. Academic Achievement - Retesting on the English and Mathematics sections of the Florida Twelfth Grade Test. Publisher: Educational Testing Service - 1967.
2. Measure of Intellect - The California Short Form Test of Mental Maturity, 1963 revision, non-language I.Q. section only. Publisher: California Test Bureau - 1961*.
3. Personality Measure - The 16 Personality Factor Test, Form C (16 PF). Publisher: The Institute for Personality and Ability Testing - 1962.
4. Attitude Measurement - The College Student Questionnaire. Publisher: Educational Testing Service - 1965.
5. Self-Concept Measurement - A self-concept scale was devised based on 16 PF. (See Appendix for detailed explanation of this self-concept scale.)

In addition to these formal tests, both attrition rate and grades were used as criterion measures.

SELECTION OF RESEARCH DESIGN

The design followed in the evaluation of this program was that suggested by Stanley and Campbell** in which the subjects are randomly assigned to various treatment levels with no pre-testing. A brief description of their design is included in the Appendix.

*Results are not included since the mean I.Q. scores were determined to be invalid. This again supports the position that group I.Q. tests, with their inherent speededness and dependency on reading, should not be used with academically underprepared students.

**Donald T. Campbell and Julian C. Stanley, "Experimental and Quasi-Experimental Designs for Research on Teaching" in Handbook of Research on Teaching, ed. by N. L. Gage (Chicago: Rand McNally and Co., 1963)

The purpose was to evaluate the effectiveness of the Community College Studies Program (E group) as compared with the other two approaches to placement of the academically underprepared student (C_1 and C_2). The basic question was whether the student derived measurable benefits from the extensive efforts of the Community College Studies Program that he would not have received either from direct entry into the regular college program (C_2) or from the traditional remedial program (C_1).

RESULTS

The results are reported in terms of the instruments used and all reported differences between groups are to be considered statistically significant unless otherwise noted. To facilitate reading, most of the tables are contained in the Appendix.

16 PERSONALITY FACTOR TEST (16 PF)

The personality characteristics used to describe the groups are taken from the scales of the 16 PF. An analysis of the three groups on the 16 PF revealed very few differences in personality traits. C₂ students were less suspicious, more trusting, less jealous and easier to get along with (but easier to fool) than either of the other two groups. The C₁ group was more apprehensive, worrying, depressive and troubled than the E group.

Many ethnic differences were found on this personality measurement. Although all three groups were below average, Blacks exhibited less abstract thinking and scholastic ability than Whites. While the Whites were more assertive, independent and aggressive than the Blacks, the latter group was more conscientious, persevering and rule-bound than either the White or Spanish students*. In addition, the Blacks were more tender-minded, dependent, sensitive, controlled and socially precise than Whites. The Spanish students were more imaginative and bohemian than the Whites. Both the White and Spanish students were more self-sufficient and resourceful than Black students. All of these relationships were consistent throughout the three treatment groups.

As expected, many sex differences in personality were noted. Males were more independent, aggressive and stubborn than females, who were more conscientious and rule-bound. Males were more self-sufficient and resourceful

*Defined for the purpose of this study as any student whose native language is Spanish.

than females, who were more dependent, tender-minded and sensitive. Females were more apprehensive, depressive, tense and frustrated than males. Many of these traits were exhibited consistently throughout the treatment groups.

Examination of the performance of the students based on their attrition status revealed very few personality differences between the students who withdrew from school and those who continued. Within the E group, the students who withdrew from college had more scholastic ability and were less concrete in their thinking than the students who remained in school. Within the E group, the students who remained in school were more dependent, sensitive and imaginative than those who withdrew, but the latter were more apprehensive and depressive. Of the students who withdrew from school, the E group students were more self-sufficient and resourceful than the C₁ students. Of the students who remained in school, the E students were less apprehensive or depressive than the students in both other groups.

SELF-RATING SCALE (SRS)

An analysis of the three groups on the SRS reveals only one area in which they differed. The E students saw themselves as more outgoing, more sociable, and more easy going than did the C₁ group.

Many differences in self-ratings were found among the three ethnic groups. Black students rated themselves higher on intelligence than the White or Spanish students. They also rated themselves as more suspicious and harder to get along with than the White students, but saw themselves as having more "cool" and being less easy to upset than Spanish students. The White students saw themselves as more happy-go-lucky and carefree than the Blacks, but more anxious, worried and troubled than the Spanish. The Spanish students saw themselves as being more sensitive and dependent on others than

both the Blacks and Whites. They also saw themselves as being more shrewd, worldly, ambitious and calculating than the Whites. The Blacks saw themselves as following the rules more closely than the Whites, while the Whites saw themselves as having a more liberal viewpoint than the Spanish. All of these relationships were consistent throughout the treatment groups.

There were not as many sex differences in perception of personality traits as would be expected, considering the sex differences usually obtained by actual personality measurement. Males saw themselves as more shrewd, worldly, ambitious, aggressive, dominant and emotionally cool than females. These differences tended to be consistent throughout the treatment groups.

Examination of the students based on their attrition status reveals a significant difference only within the E group, where those who withdrew from school saw themselves as being more difficult to get along with, more suspicious, anxious and worried than those who remained in school.

DEVIATION SCORES (SELF PERCEPTION VERSUS SCORES ON THE 16 PF)

An analysis of Deviation scores of the three groups reveals several areas in which the E and C₂ groups differed. C₂ students were more accurate in perceiving themselves along the personality dimension of social boldness, inhibition and shyness than both of the other two groups. In addition, the E group students were least accurate in their perception of the personality traits of tenseness and frustration.

Only two variables, scholastic ability and liberal viewpoint, showed differences among ethnic groups. The White students were more accurate in predicting their intelligence and scholastic ability than either the Black or Spanish students. The Spanish students were less accurate than either the White or Black students in estimating their liberal viewpoint. Other ethnic

differences were found within treatment groups and within ethnic groups.

Females were more accurate than males in perceiving certain aspects of their personality. Although both males and females underrated themselves as far as the traits of dominance, aggressiveness and stubbornness are concerned, females were more accurate than males. Both groups overrated themselves on the trait of conscientiousness, but females were more accurate than males. Males very accurately saw themselves as being less dependent, gentle, and sensitive to others, but females greatly misperceived themselves as being less tender-minded, dependent, over-protected and sensitive than they actually were. Females were more accurate than males in perceiving the trait of being happy-go-lucky.

An examination of the performance of the students in relation to their attrition status reveals only one difference between the perceptual accuracy of those students who dropped out of school and those who remained. The former group was more accurate in perceiving themselves in terms of their critical thinking and liberal viewpoint than the latter group. In general, of those who remained, the C₂ students seemed to show the most perceptual accuracy.

FLORIDA TWELFTH GRADE TEST (FTG)

An analysis of the three groups on the FTG (post-test of the English and Mathematics sections) reveals no significant difference among the treatment groups, although the C₂ students had the highest scores.

Ethnic differences were found among the three groups on the FTG. In general, Spanish speaking students had the highest scores in English and Mathematics, while the Black students had the lowest scores. On the English test, the Spanish and White students scored higher than the Blacks. The White students in the E group scored higher than the White students in the C₁ group on the English test. On the Mathematics tests, the Spanish students

scored higher than the Black students.

As expected, sex differences in academic achievement were obtained on the FTG. Females had higher English scores than males. These differences held up consistently throughout each of the treatment groups. Males had higher Mathematics scores than females, but the difference was not significant.

Examination of the performance of students based on their attrition status reveals no significant difference between the scores of students who withdrew from school and those who remained. However, within the C_1 treatment group, the students who remained in school had a higher English score than those who withdrew. Of those who withdrew from school, the E group students had higher English scores than the students in the C_1 group.

ATTRITION

Tables 1 and 2 represent the attrition rate of the students originally enrolled in E, C_1 and C_2 . There appears to be only a slight difference in the attrition rate of the E group and the C_1 group and virtually no difference between the E group and the C_2 group during the Winter Term. The largest difference in the attrition rate was between E group students and C_1 students scoring 13 and above on the Aptitude section (or 100-149 Total) of the FTG. The percentage differences for these groups were 76.4 (E group) as compared to 86.2 (C_1 group). The only large difference in attrition rate for the Fall Term, 1970 was between the E group (52.8) and the C_2 group (60.0).

Table 3 reflects the number and percentage of Black, White and Spanish students originally enrolled in the E, C_1 and C_2 groups who returned in the Winter Term, 1970 and the Fall Term, 1970. Only small differences were found during the Winter Term among the E, C_1 and C_2 groups.

During the 1970 Fall Term, Black students showed a larger percentage enrolled than did the comparable C_1 and C_2 groups. Also, the C_2 White students showed a larger percentage enrolling in this same term (61.3%), than did the E White students (43.9%).

The attrition rate of male and female students for the Winter Term, 1970 and the Fall Term, 1970 is presented in Table 4. The percentage of females in all groups (E, C_1 and C_2) enrolled in both Winter and Fall Terms is higher than the male enrollment (except in the C_2 group during the Fall Term). Females in C_1 demonstrate a significant difference in enrollment over E group females during the Winter Term, while E group females showed a higher enrollment than did C_2 females in the Fall Term. The only difference between male groups was between C_2 enrollment (56.1%) and E group enrollment (47.9%).

DISTRIBUTION OF GRADES

Tables 5 and 6 reflect final grades for the Fall, Winter, Spring and Summer Terms of 1969-70. Students enrolled in the E, C_1 and C_2 groups demonstrated intra- as well as inter-group differences throughout the tables. The higher percentage of A, B and C grades for the E group and the lower percentage of D, F, W and I grades for the E group is attenuated by the fact that the students in the E group were not given less than a C grade in their CCS work. However, some grades lower than C are recorded because some students took course work outside of CCS.

The distribution of grades for E, C_1 and C_2 students based on the period of time enrolled (1969-70) is found in Tables 7 and 8. Percentages indicate that students in the E group earned more grades in the 2.00-2.99 range than did the C_1 or C_2 groups. The control groups earned more grades below the 1.99 range than did the E group.

Grades for the Fall Term, 1970 are reflected in Tables 9 and 10 for students previously enrolled in E, C₁ and C₂. Although there are several minor exceptions, there are only slight differences in the groups. The percentage for the E group (49.2) was slightly higher than for the C₁ group (47.9) but lower than for the C₂ group (53.0) for the total of A, B and C grades.

Tables 11 and 12 provide a distribution of grades for previously enrolled students in E, C₁ and C₂ for the Fall Term, 1970. The distribution showed a higher percentage of E group students who earned grades between 2.00 and 3.49. In contrast, the C₁ and C₂ groups have a larger percentage of students in the Grade Point Average (GPA) range of 1.00-1.99.

Cumulative Grade Point Averages for the Black, White and Spanish students for the E, C₁ and C₂ groups based on the Fall, Winter, Spring and Summer Terms of 1969-70 are presented in Table 13. Inspection of the table reveals a difference in Grade Point Averages between the E group and C₁ and C₂ groups for each of the three sub-groups. Black (2.246), White (2.236) and Spanish (2.297) students in the E group had higher Grade Point Averages than did comparable students in the other groups. However, none of the differences were statistically significant at the .05 level.

Table 14 reflects the cumulative Grade Point Average of male and female E, C₁ and C₂ students, enrolled during the Fall, Winter, Spring and Summer Terms of 1969-70. The E students had higher Grade Point Averages for both male and female students than the C₁ and C₂ groups.

Table 15 is an analysis of Fall Term Grade Point Average for males and females, by group. Although the females in the E group show a slight superiority to C₁ and C₂, the difference did not reach statistical significance at the .05 level. In Table 16 the Black students in the E group did slightly better than those in C₁ and C₂ but again the differences were not statistically

significant.

Table 17 reflects the Grade Point Average for the Fall Term for males and females analyzed on the basis of FTG scores. None of the differences reached statistical significance at the .05 level.

Table 18 is similar to 17 except that the analysis is by ethnic group and FTG scores. Here again, none of the differences reached statistical significance at the .05 level.

TABLE 1 - ATTRITION

THIS TABLE REFLECTS THE NUMBER AND PERCENT OF STUDENTS ORIGINALLY ENROLLED IN E, C₁, C₂ WHO RETURNED IN WINTER 1969-70 AND FALL 1970-71.

	E GROUP	C ₁ GROUP	C ₂ GROUP
ORIGINAL N	347	112	63
ENROLLED IN WINTER TERM (1969-2)	N = 265 % = 76.4	N = 92 % = 82.1	N = 47 % = 74.6
ENROLLED IN FALL TERM (1970-1)	N = 183 % = 52.7	N = 58 % = 51.8	N = 35 % = 55.5

TABLE 2 - ATTRITION BASED ON FTG APTITUDE SCORES

THIS TABLE REFLECTS THE NUMBER AND PERCENT OF STUDENTS ORIGINALLY ENROLLED IN E, C₁, C₂ WHO RETURNED IN WINTER 1969-70 AND FALL 1970-71.

	E GROUP ORIGINAL N = 347		C ₁ GROUP ORIGINAL N = 112		C ₂ GROUP ORIGINAL N = 63	
	0-12 (Apt) 0-99 (Total)	13 & above (Apt) 100-149 (Total)	0-12 (Apt) 0-99 (Total)	13 & above (Apt) 100-149 (Total)	0-12 (Apt) 0-99 (Total)	13 & above (Apt) 100-149 (Total)
ORIGINAL N	224	123	83	29	33	30
ENROLLED IN WINTER TERM (1969-2)	N = 171 % = 76.3	N = 94 % = 76.4	N = 67 % = 80.7	N = 25 % = 86.2	N = 24 % = 72.7	N = 23 % = 76.7
ENROLLED IN FALL TERM (1970-1)	N = 118 % = 52.7	N = 65 % = 52.8	N = 43 % = 51.8	N = 15 % = 51.7	N = 17 % = 51.5	N = 18 % = 60.0

TABLE 3 - ATTRITION

(BLACK, WHITE AND SPANISH)

THIS TABLE REFLECTS THE NUMBER AND PERCENT OF STUDENTS ORIGINALLY ENROLLED IN E. C₁ AND C₂ WHO RETURNED IN WINTER 1969-70 AND FALL 1970.

	E GROUP			C ₁ GROUP			C ₂ GROUP		
	BLACK	WHITE	SPANISH	BLACK	WHITE	SPANISH	BLACK	WHITE	SPANISH
ORIGINAL N	116	157	74	47	51	14	20	31	12
ENROLLED IN WINTER TERM (1969-2)	N=94 %=81.0	N=113 %=72.0	N=64 %=86.5	N=39 %=83.0	N=39 %=76.5	N=14 %=100.0	N=16 %=80.0	N=22 %=71.0	N=9 %=75.0
ENROLLED IN FALL TERM (1970-1)	N=68 %=58.6	N=69 %=43.9	N=44 %=59.5	N=23 %=48.9	N=24 %=47.0	N=11 %=78.6	N=10 %=50.0	N=19 %=61.3	N=6 %=50.0

TABLE 4 - ATTRITION

(MALE AND FEMALE)

THIS TABLE REFLECTS THE NUMBER AND PERCENT OF STUDENTS ORIGINALLY ENROLLED IN E, C₁ and C₂ WHO RETURNED IN WINTER 1969-70 AND FALL 1970.

	E GROUP		C ₁ GROUP		C ₂ GROUP	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
ORIGINAL N	217	130	70	42	41	22
ENROLLED IN WINTER TERM (1969-2)	N=162 %= 74.6	N=109 %= 83.8	N=53 %=75.7	N=39 %=92.8	N=29 %=70.7	N=18 %=81.8
ENROLLED IN FALL TERM (1970-1)	N=104 %= 47.9	N=79 %=60.8	N=33 %=47.1	N=25 %=59.5	N=23 %=56.1	N=12 %=54.5

TABLE 5 - GRADES
THIS TABLE REFLECTS FINAL GRADES FOR 1969 - 70, FALL, WINTER, SPRING AND SUMMER FOR STUDENTS ENROLLED IN E, C₁, C₂

	E GROUP ORIGINAL N = 347			C ₁ GROUP ORIGINAL N = 112			C ₂ GROUP ORIGINAL N = 63		
	N	%	CUM %	N	%	CUM %	N	%	CUM %
FINAL GRADES FOR 69-70 FALL, WINTER, SPRING AND SUMMER									
A	138	5.8	5.8	115	19.7	19.7	60	18.3	18.3
B	551	23.4	29.2	139	23.9	43.6	87	26.6	44.9
C	1671	70.8	100.0	328	56.4	100.0	180	55.1	100.0
A + B + C	2360	100.0		582	100.0		327	100.0	
D	117	8.3	8.3	140	22.2	22.2	101	29.4	29.4
F	80	5.7	14.0	211	33.5	55.7	40	11.6	41.0
W	987	70.3	84.3	277	44.0	99.7	201	58.4	99.4
I	221	15.7	100.0	2	0.3	100.0	2	0.6	100.0
D + F + W + I	1405	100.0		630	100.0		344	100.0	
A + B + C	2360	62.7		582	48.0		327	48.7	
D + F + W + I	1405	37.3	100.0	630	52.0	100.0	344	51.3	100.0
A + B + C + D + F + W + I (TOTAL)	3765	100.0		1212	100.0		671	100.0	

TABLE 6 - GRADES BASED ON FTG SCORES

THIS TABLE REFLECTS FINAL GRADES FOR 1969-70, FALL, WINTER, SPRING AND SUMMER FOR STUDENTS ENROLLED IN E, C₁, C₂.

F. T. G. SCORES	E GROUP ORIGINAL - N = 347						C ₁ GROUP ORIGINAL - N = 112						C ₂ GROUP ORIGINAL - N = 63					
	0-12 (Apt) 0-99 (Total) (N=224)			13 & above (Apt) 100-149 (Total) (N=123)			0-12 (Apt) 0-99 (Total) (N=83)			13 & above (Apt) 100-149 (Total) (N=29)			0-12 (Apt) 0-99 (Total) (N=33)			13 & above (Apt) 100-149 (Total) (N=30)		
	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %
FINAL GRADES FOR 69/70 FALL, WINTER, SPRING AND SUMMER																		
A	54	3.8	3.8	84	8.8	8.8	81	20.6	20.6	34	18.0	18.0	29	18.7	18.7	31	18.0	18.0
B	252	17.9	21.7	299	31.4	40.2	86	21.9	42.5	53	28.0	46.0	39	25.2	43.9	48	27.9	45.9
C	1101	78.3	100.0	570	59.8	100.0	226	57.5	100.0	102	54.0	100.0	87	56.1	100.0	93	54.1	100.0
A + B + C	1407	100.0		953	100.0		393	100.0		189	100.0		155	100.0		172	100.0	
D	91	9.1	9.1	26	6.4	6.4	108	21.7	21.7	32	24.1	24.1	54	30.8	30.8	47	27.8	27.8
F	57	5.7	14.8	23	5.7	12.1	176	35.4	57.1	35	26.3	50.4	24	13.7	44.5	16	9.5	37.3
W	685	68.6	83.4	302	74.4	86.5	211	42.5	99.6	66	49.6	100.0	96	54.9	99.4	105	62.1	99.4
I	166	16.6	100.0	55	13.5	100.0	2	0.4	100.0	0	0.0	100.0	1	0.6	100.0	1	0.6	100.0
D + F + W + I	999	100.0		406	100.0		497	100.0		133	100.0		175	100.0		169	100.0	
A + B + C	1407	58.5		953	70.1		393	44.2		189	58.7		155	47.0		172	50.4	
D + F + W + I	999	41.5	100.0	406	29.9	100.0	497	55.8	100.0	133	41.3	100.0	175	53.0	100.0	169	49.6	100.0
A + B + C + D + F + W + I (TOTAL)	2406	100.0		1359	100.0		890	100.0		322	100.0		330	100.0		341	100.0	

TABLE 7 - GRADE POINT AVERAGE

THIS TABLE REFLECTS THE G P A FOR E, C₁, AND C₂ STUDENTS BASED ON THE PERIOD OF TIME ENROLLED* **

	E GROUP			C ₁ GROUP			C ₂ GROUP		
	N	%	CUM %	N	%	CUM %	N	%	CUM %
GRADES FOR 1969-1970 FALL, WINTER, SPRING AND SUMMER									
3.50 - 4.00	2	.6	.6	0	0.0	0.0	0	0.0	0.0
3.00 - 3.49	8	2.3	2.9	3	2.7	2.7	1	1.6	1.6
2.50 - 2.99	41	11.8	14.7	7	6.2	8.9	5	7.9	9.5
2.00 - 2.49	191	55.0	69.7	20	17.9	26.8	15	23.8	33.3
1.50 - 1.99	57	16.4	86.1	29	25.9	52.7	18	28.6	61.9
1.00 - 1.49	12	3.5	89.6	22	19.6	72.3	10	15.9	77.8
0.00 - 0.99	36	10.4	100.0	31	27.7	100.0	14	22.2	100.0

*The basis for the calculation of the G.P.A. may vary from one to four terms.

**Interpretation of significance of G.P.A. must be attenuated by the fact that the students in the E group were not accorded less than a C grade in their C.C.S. work.

TABLE 8 - GRADE POINT AVERAGE BASED ON FTG SCORES

THIS TABLE REFLECTS THE GPA FOR E, C₁ AND C₂ STUDENTS BASED ON THE PERIOD OF TIME ENROLLED.* **

FTG SCORES	E GROUP ORIGINAL N = 347					C ₁ GROUP ORIGINAL N = 112					C ₂ GROUP ORIGINAL N = 63				
	0-12 (Apt) 0-99 (Total) (N=224)		13 & above (Apt) 100-149 (Total) (N=123)			0-12 (Apt) 0-99 (Total) (N=83)		13 & above (Apt) 100-149 (Total) (N=29)			0-12 (Apt) 0-99 (Total) (N=33)		13 & above (Apt) 100-149 (Total) (N=30)		
	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %
GRADES FOR 1969- 1970 FALL, WINTER SPRING, SUMMER															
3.50 - 4.00	0	0.0	0.0	2	1.6	1.6	0	0.0	0.0	0.0	0	0.0	0.0	0	0.0
3.00 - 3.49	2	0.9	0.9	6	4.9	6.5	2	2.4	2.4	3.4	0	0.0	0.0	1	3.3
2.50 - 2.99	14	6.2	7.1	27	21.9	28.4	4	4.8	7.2	10.3	3	9.1	9.1	2	6.7
2.00 - 2.49	124	55.4	62.5	67	54.5	82.9	12	14.5	21.7	27.6	8	15.1	24.2	10	33.3
1.50 - 1.99	52	23.2	85.7	5	4.1	87.0	19	22.9	44.6	34.5	10	36.4	60.6	6	20.0
1.00 - 1.49	9	4.0	89.7	3	2.4	89.4	20	24.1	68.7	82.7	2	15.1	75.7	5	16.7
0.00 - 0.99	23	10.3	100.0	13	10.6	100.0	26	31.3	100.0	100.0	5	24.3	100.0	6	20.0

*The basis for the calculation of the GPA may vary from one to four terms.

**Interpretation of significance of GPA must be attenuated by the fact that the students in the E group were not accorded less than a C grade in their CCS work.

TABLE 9 - GRADES FOR FALL, 1970
THIS TABLE REFLECTS FINAL GRADES FOR THE FALL TERM 1970 FOR STUDENTS ENROLLED IN E, C₁, C₂

FINAL GRADES FOR FALL, 1970	E GROUP N = 183			C ₁ GROUP N = 58			C ₂ GROUP N = 35		
	N	%	CUM %	N	%	CUM %	N	%	CUM %
A	56	12.6	12.6	17	12.3	12.3	9	10.2	10.2
B	141	31.7	44.3	34	24.6	36.9	18	20.5	30.7
C	248	55.7	100.0	87	63.1	100.0	61	69.3	100.0
A + B + C	445	100.0		138	100.0		88	100.0	
D	96	20.9	20.9	36	24.0	24.0	29	37.2	37.2
F	66	14.4	35.3	21	14.0	38.0	13	16.7	53.9
W	272	59.3	94.6	89	59.3	97.3	31	39.7	93.6
I	25	5.4	100.0	4	2.7	100.0	5	6.4	100.0
D + F + W + I	459	100.0		150	100.0		78	100.0	
A + B + C	445	49.2		138	47.9		88	53.0	
D + F + W + I	459	50.8	100.0	150	52.1	100.0	78	47.0	100.0
A + B + C + D + F + W + I (TOTAL)	904	100.0		288	100.0		166	100.0	

TABLE 10 - GRADES FOR FALL, 1970 BASED ON FTG SCORES

THIS TABLE REFLECTS FINAL GRADES FOR THE FALL TERM, 1970 FOR STUDENTS ENROLLED IN E, C₁, C₂

F. T. G. SCORES	E GROUP ORIGINAL - N = 347						C1 GROUP ORIGINAL - N = 112						C2 GROUP ORIGINAL - N = 63					
	0-12(Apt) 0-99(Total) (N=118)			13 & above (Apt) 100-149(Total) (N=65)			0-12(Apt) 0-99(Total) (N=43)			13 & above (Apt) 100-149(Total) (N=15)			0-12(Apt) 0-99(Total) (N=15)			13 & above (Apt) 100-149 (Total) (N=18)		
	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %
A	19	7.6	7.6	37	18.9	18.9	6	7.0	7.0	11	21.2	21.2	1	3.0	3.0	8	14.6	14.6
B	81	32.5	40.1	60	30.6	49.5	21	24.4	31.4	13	25.0	46.2	6	18.2	21.2	12	21.8	36.4
C	149	59.9	100.0	99	50.5	100.0	59	68.6	100.0	28	53.8	100.0	26	78.8	100.0	35	63.6	100.0
A + B + C	249	100.0		196	100.0		86	100.0		52	100.0		33	100.0		55	100.0	
D	71	22.5	22.5	25	17.5	17.5	30	24.2	24.2	6	23.1	23.1	21	43.8	43.8	8	26.7	26.7
F	52	16.4	38.9	14	9.8	27.3	19	15.3	39.5	2	7.7	30.8	6	12.5	56.3	7	23.3	50.0
W	176	55.7	94.6	96	67.1	94.4	72	58.1	97.6	17	65.4	96.2	18	37.5	93.8	13	43.3	93.3
I	17	5.4	100.0	8	5.6	100.0	3	2.4	100.0	1	3.8	100.0	3	6.2	100.0	2	6.7	100.0
D + F + W + I	316	100.0		143	100.0		124	100.0		26	100.0		48	100.0		30	100.0	
A + B + C	249	44.1		196	57.8		86	41.0		52	66.7		33	40.7		55	64.7	
D + F + W + I	316	55.9	100.0	143	42.2	100.0	124	59.0	100.0	26	33.3	100.0	48	59.3	100.0	30	35.3	100.0
A + B + C + D + F + W + I (TOTAL)	565	100.0		339	100.0		210	100.0		78	100.0		81	100.0		85	100.0	

TABLE 11 - GRADE POINT AVERAGE FOR FALL, 1970

THIS TABLE REFLECTS THE G P A FOR E, C₁ AND C₂ STUDENTS BASED ON THE FALL TERM, 1970

GRADES FOR FALL, 1970	E GROUP N = 183			C ₁ GROUP N = 58			C ₂ GROUP N = 35		
	N	%	CUM %	N	%	CUM %	N	%	CUM %
3.50 - 4.00	5	2.7	2.7	3	5.2	5.2	0	0.0	0.0
3.00 - 3.49	13	7.1	9.8	3	5.2	10.4	1	2.9	2.9
2.50 - 2.99	30	16.4	26.2	4	6.9	17.3	5	14.3	17.2
2.00 - 2.49	53	29.0	55.2	15	25.9	43.2	9	25.7	42.9
1.50 - 1.99	23	12.6	67.8	11	18.9	62.1	10	28.6	71.5
1.00 - 1.49	17	9.3	77.1	10	17.2	79.3	4	11.4	82.9
0.00 - 0.99	42	22.9	100.0	12	20.7	100.0	6	17.1	100.0

TABLE 12 - GRADE POINT AVERAGE FOR FALL, 1970 BASED ON FTG SCORES
THIS TABLE REFLECTS THE G P A FOR E, C₁ AND C₂ STUDENTS BASED ON THE FALL TERM, 1970

	E GROUP 'ORIGINAL' N = 347						C ₁ GROUP ORIGINAL N = 112						C ₂ GROUP ORIGINAL N = 63					
	0-12(Apt) 0-99(Total) (N=118)			13 & above(Apt) 100-149(Total) (N=65)			0-12(Apt) 0-99(Total) (N=43)			13 & above(Apt) 100-149(Total) (N=15)			0-12(Apt) 0-99(Total) (N=17)			13 & above(Apt) 100-149(Total) (N=18)		
	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %	N	%	CUM %
F. T. G. SCORES																		
GRADES FOR FALL 1970																		
3.50 - 4.00	3	2.5	2.5	2	3.1	3.1	2	4.6	4.6	1	6.7	6.7	0	0.0	0.0	0	0.0	0.0
3.00 - 3.49	7	5.9	8.4	6	9.2	12.3	1	2.3	6.9	2	13.3	20.0	0	0.0	0.0	1	5.6	5.6
2.50 - 2.99	15	12.7	21.1	15	23.1	35.4	2	4.6	11.5	2	13.3	33.3	0	0.0	0.0	5	27.8	33.4
2.00 - 2.49	30	25.4	46.5	23	35.4	70.8	10	23.3	34.8	5	33.3	66.6	3	17.6	17.6	6	33.3	66.7
1.50 - 1.99	19	16.1	62.6	4	6.1	76.9	10	23.3	58.1	1	6.7	73.3	7	41.2	58.8	3	16.7	83.4
1.00 - 1.49	14	11.9	74.5	3	4.6	81.5	7	16.3	74.4	3	20.0	93.3	3	17.6	76.4	1	5.5	88.9
0.00 - 0.99	30	25.5	100.0	12	18.5	100.0	11	25.6	100.0	1	6.7	100.0	4	23.6	100.0	2	11.1	100.0

TABLE 13 - GRADE POINT AVERAGE

(BLACK, WHITE AND SPANISH)

THIS TABLE REFLECTS THE GPA FOR E, C₁ AND C₂ STUDENTS
BASED ON THE PERIOD OF TIME ENROLLED.* **

	E GROUP	C ₁ GROUP	C ₂ GROUP
BLACK	2.246 (N=53)	1.681 (N=36)	1.778 (N=15)
WHITE	2.236 (N=74)	1.615 (N=33)	1.856 (N=21)
SPANISH	2.297 (N=52)	1.972 (N=14)	2.254 (N= 7)

* Basis for the calculation of the GPA may vary from one to four terms.

** Interpretation of significance of GPA must be attenuated by the fact that the students in the E group were not accorded less than a C grade in their CCS work.

TABLE 14 - GRADE POINT AVERAGE

(MALE AND FEMALE)

THIS TABLE REFLECTS THE GPA FOR E, C₁ AND C₂ STUDENTS
BASED ON THE PERIOD OF TIME ENROLLED.* **

	E GROUP	C ₁ GROUP	C ₂ GROUP
MALE	2.168 (N=96)	1.595 (N=50)	1.860 (N=25)
FEMALE	2.359 (N=83)	1.870 (N=33)	1.941 (N=18)

* Basis for the calculation of the GPA may vary from one to four terms.

** Interpretation of significance of GPA must be attenuated by the fact that the students in the E group were not accorded less than a C grade in their CCS work.

TABLE 15 - GRADE POINT AVERAGE FOR FALL, 1970

(MALE AND FEMALE)

THIS TABLE REFLECTS THE GPA FOR E, C₁ AND C₂
STUDENTS BASED ON THE FALL TERM, 1970

	E GROUP	C ₁ GROUP	C ₂ GROUP
MALE	1.791 (N=89)	1.800 (N=26)	1.677 (N=21)
FEMALE	2.102 (N=74)	1.874 (N=24)	1.679 (N=12)

TABLE 16 - GRADE POINT AVERAGE FOR FALL, 1970

(BLACK, WHITE AND SPANISH)

THIS TABLE REFLECTS THE GPA FOR E, C₁ AND C₂
STUDENTS BASED ON THE FALL TERM, 1970

	E GROUP	C ₁ GROUP	C ₂ GROUP
BLACK	1.945 (N=64)	1.712 (N=20)	1.548 (N= 9)
WHITE	1.886 (N=59)	1.705 (N=21)	1.675 (N=18)
SPANISH	1.980 (N=40)	2.415 (N= 9)	1.882 (N= 6)

TABLE 17 - GRADE POINT AVERAGE FOR FALL, 1970 BASED ON FTG SCORES

(MALE AND FEMALE)

THIS TABLE REFLECTS THE GPA FOR E, C₁ AND C₂ STUDENTS
BASED ON THE FALL TERM, 1970

	E GROUP		C ₁ GROUP		C ₂ GROUP	
	0-12 (Apt) 0-99 (Tot)	13 & above (Apt) 100-149 (Tot)	0-12 (Apt) 0-99 (Tot)	13 & above (Apt) 100-149 (Tot)	0-12 (Apt) 0-99 (Tot)	13 & above 100-149 (Tot)
MALE	1.659 (N=53)	1.986 (N=36)	1.588 (N=16)	2.139 (N=10)	1.806 (N=7)	1.613 (N=14)
FEMALE	1.933 (N=42)	2.325 (N=32)	1.878 (N=19)	1.860 (N=5)	1.596 (N=5)	1.738 (N=7)

TABLE 18 - GRADE POINT AVERAGE FOR FALL, 1970 BASED ON FTG SCORES

(BLACK, WHITE AND SPANISH)

THIS TABLE REFLECTS THE GPA FOR E, C₁ AND C₂ STUDENTS
BASED ON THE FALL TERM, 1970

	E GROUP		C ₁ GROUP		C ₂ GROUP	
	0-12 (Apt) 0-99 (Tot)	13 & above (Apt) 100-149 (Tot)	0-12 (Apt) 0-99 (Tot)	13 & above (Apt) 100-149 (Tot)	0-12 (Apt) 0-99 (Tot)	13 & above (Apt) 100-149 (Tot)
BLACK	1.867 (N=47)	2.160 (N=17)	1.652 (N=16)	1.950 (N=4)	1.552 (N=5)	1.542 (N=4)
WHITE	1.560 (N=27)	2.162 (N=32)	1.471 (N=13)	2.086 (N=8)	1.686 (N=5)	1.671 (N=13)
SPANISH	1.866 (N=21)	2.105 (N=19)	2.590 (N=6)	2.067 (N=3)	2.215 (N=2)	1.715 (N=4)

COLLEGE STUDENT QUESTIONNAIRE (CSQ)

An analysis of the data shows that, consistently, item by item, there are no statistically significant differences among the three groups under question. This conclusion has been arrived at through a comparative study of the percentage of responses for the three groups. Hence, tables for the individual 151 item responses of the two-hundred item questionnaire have not been included here, since it would necessitate an excessive amount of tables.

Local questions A through E were biographical in nature and yielded descriptive data. Local questions F through J, however, dealt with the respondent's own attitude toward a number of items. There were four possible responses to each question, (1) strongly agree, (2) agree, but not strongly, (3) disagree, but not strongly, (4) strongly disagree. This report has grouped the two positive responses and two negative responses into a dichotomized response situation--positive and negative. The following table gives the percentage of responses in each category. It should be remembered that the following table does not list data for a fourth group--those not enrolled in any English course. Also, in some items, students failed to indicate any of the responses as their choice.

From the responses to item F, a study of the percentages revealed that all of the groups felt that teachers are warm, friendly, helpful individuals. There were no statistically significant differences between the groups, with an average of 85% responding positively about teachers.

However, in item G, only 21% of all students tested reported that the word "school" suggests a place where they feel comfortable and relaxed. A slightly higher positive response was elicited from the E group with 23% reporting favorably toward the word "school". Compared to this figure, only 18% in C₁ and 19% in C₂ responded that they felt comfortable and relaxed in school. There were no statistically significant differences among the groups.

TABLE 19
SELECTED LOCAL ITEMS

F. Do you agree or disagree with the idea that teachers are warm, friendly individuals who wish to help students?					
	<u>C1</u>	<u>C2</u>	<u>E</u>	<u>ALL</u>	
AGREE	82	85	83	85	
DISAGREE	14	15	16	14	
NO RESPONSE	4	0	1	1	
G. Does the word "school" suggest a place in my life where I am comfortable and relaxed?					
AGREE	18	19	23	21	
DISAGREE	80	80	76	78	
NO RESPONSE	2	1	1	1	
H. Would you agree or disagree with the belief that school makes it possible to form many interesting and meaningful relationships?					
AGREE	95	93	92	92	
DISAGREE	5	7	8	8	
I. I feel satisfied with my ability to write.					
AGREE	40	55	53	50	
DISAGREE	59	45	47	49	
NO RESPONSE	1	0	0	1	
J. I feel confident about my chances for future academic success.					
AGREE	18	37	37	33	
DISAGREE	82	62	63	66	
NO RESPONSE	0	1	0	1	

Item H showed an overwhelming 92% of the students felt that interesting and meaningful relationships could be formed. Again, there were no statistically significant differences among the groups, with only 8% of the students responding negatively to the item.

The responses to Item I revealed that slightly more than half of the C_2 and E groups felt positive about their ability to write, while 40% of the C_1 group reported a positive response to this item. There were no statistically significant differences among the groups.

Item J dealt with the student's attitude toward his chances for future academic success. Of the C_1 students, 18% reported that they felt positive about their chances for future academic success, while 37% of the students from both C_2 and E groups reported that they felt positive relative to their chances for future academic success. There was a statistically significant difference among the groups at the .01 level of confidence.

Data gathered from individual item responses were reported in terms of the seven scales described in the Appendix. A comparative table of mean scores and standard deviations for each group is given in Table 20. It can be seen that there were no statistically significant differences among the three groups with regard to family independence, peer independence, liberalism, social conscience, cultural sophistication, motivation for grades and family social status.

TABLE 20
COLLEGE STUDENT QUESTIONNAIRE

TABLE OF SCALES

	<u>C₁</u>	<u>C₂</u>	<u>E</u>	<u>ALL</u>
FAMILY INDEPENDENCE				
MEAN	19.26	20.09	19.56	19.60
STANDARD DEVIATION	4.74	5.03	5.33	5.10
PEER INDEPENDENCE				
MEAN	22.67	22.68	22.87	22.80
STANDARD DEVIATION	4.42	4.01	4.39	4.31
LIBERALISM				
MEAN	24.56	24.98	24.07	24.45
STANDARD DEVIATION	3.84	3.97	3.99	4.02
SOCIAL CONSCIENCE				
MEAN	24.92	24.72	24.72	24.78
STANDARD DEVIATION	4.36	5.01	4.57	4.72
CULTURAL SOPHISTICATION				
MEAN	20.99	21.21	20.81	21.01
STANDARD DEVIATION	4.85	4.56	4.55	4.63
MOTIVATION FOR GRADES				
MEAN	23.18	23.22	23.14	23.17
STANDARD DEVIATION	4.38	5.36	4.80	4.87
FAMILY SOCIAL STATUS				
MEAN	22.64	22.88	24.52	23.81
STANDARD DEVIATION	8.59	9.90	10.03	9.79

III. ACADEMIC ACHIEVEMENT AS MEASURED ON THE ENGLISH AND MATHEMATICS PORTIONS OF THE FLORIDA TWELFTH GRADE TEST

No statistically significant differences were found among the groups on this criterion measure.

IV. COLLEGE STUDENT QUESTIONNAIRE

All but one of the scales on this measure were virtually identical with respect to each of the groups.

V. THE 16 PERSONALITY FACTOR

This test was not used as a criterion measure. Rather, it was intended to give some insights into possible personality variables which may be associated with the criterion measures of attrition and grades. The test does not distinguish well among those who leave school and those who do not.

VI. SELF-RATING SCALE AND SELF-CONCEPT

With the one exception noted in the results section, this measure also did not reveal any differences among the groups on the criterion measure of attrition, nor did the Community College Studies treatment effect any meaningful changes in accuracy of self-perception.

The overall failure of the Community College Studies program to produce any meaningful differences (except in the few variables noted above) must be attenuated by three important factors. First, this was the initial year of operation for the program. Second, the physical plant and materials were far from optimal for the program. Third, measurement on the College Student Questionnaire, the Florida Twelfth Grade Test and the Self-Rating Scale were taken after barely three months of exposure to the program.

For the second year, all three of these objections have been eliminated.

SUMMARY AND IMPLICATIONS

The basic question of this study was whether the academically under-prepared students derived measurable benefits from the extensive efforts of the Community College Studies Program (E group) that they would not have received either from direct entry into the regular college program (C₂ group) or from the more traditional remedial program (C₁ group). Based on the measures used, the overall answer to the above question is that few differences of any significance were found. The results on the criterion measures are briefly summarized below:

I. GRADES

When the total groups are measured, few differences occur with respect to distribution of grades. E group students do earn a higher percentage of B and A grades a year later than do the control group students. When analyzed further, the E group students who scored 12 and below on the Florida Twelfth Grade Aptitude section had a higher grade point average the following Fall Term than their control group counterparts. In general, the Black students and females in the E group appear to profit more from their treatment in the Community College Studies Program than do Blacks or females in the other two groups. However, none of the differences reached statistical significance.

II. ATTRITION

The same pattern holds for attrition as for grades. Overall, there are no significant differences among groups. However, Black students in the E group returned the following Fall Term at a significantly higher rate than did Blacks enrolled in the other two groups.

The physical plant and materials have been adequately secured, and the post-testing will occur after nearly two full terms. With these changes, the evaluation for the second year of operation should be much more valid and generalizations more useful.

APPENDIX

THE COMMUNITY COLLEGE STUDIES PROGRAM Prepared by Dave Porter Chairman

I. Program

- A. Statistical Program Data: Beginning with the Fall Term, 1969, the Community College Studies Program offered a total program of compensatory, remedial education to approximately 450 students who were classified "under-prepared" according to low scores on the Florida Twelfth Grade Achievement Test. An equal number (450) of students were enrolled in the English and Math 090-091 remedial courses. Furthermore, approximately two hundred students from the same ability group were allowed to enroll in regular college-level courses in order to serve as a second control group. It is understood that, if judged successful, CCS will offer total compensatory education programming to all those students normally classified as "guided", i.e., those who score low on the FTG.
- B. Program Structure: The CCS Program features two unique strategies or structures designed to maximize "whole student" orientation: integrated, interdisciplinary teaching; and interpersonal modes of instruction. These rather unique departures are effected as follows:
1. Interdisciplinary, "vertical" teams of faculty. Each team consists of five teachers - one from each of the following areas: English/communications; counseling/career planning; natural science; social science; and reading clinic.
 2. Modular block scheduling of students. The 450 students were divided into four team modules of 113 students and assigned to the vertical team mentioned above; this resulted in a 23 to 1 ratio. The use of student tutors, individualized

instruction, etc., made possible a "learning module" of 8-9 members. A breakdown of instruction by type was as follows:

- a. small-group dialogue - 60%
- b. large-group media presentations - 25%
- c. individualized instruction - 15%

- C. Program Location: CCS conducts most of its small-group and individualized instruction in the Dialogue Center recently developed in Room 1390, Scott Hall. Large-group activities are scheduled in the various auditoria and occasional short field trips are necessary.
- D. Program Materials: CCS materials are characterized by high-interest, current, up-to-date topics. One team presents Black Studies; this group offers the same courses as the other teams, but shifts emphasis to materials and issues affecting Black Americans. In addition, this team offers Black students an opportunity to study with an all-Black faculty whatever the issue involved. Also, exciting interdisciplinary teaching projects such as "Operation Survival" or the "Pollution Flotilla" are planned as these themes arise.
- E. General Program Objectives: Research was designed and is being conducted to determine the attainment of the following program objectives. Given the total remediation of the CCS Program, the student will:
- 1. Stay at Miami-Dade and pursue a one-year certificate program suitable to his interests, abilities, etc.
- OR
- 2. Stay at Miami-Dade and pursue a two-year Associate Degree program (transfer or terminal) suitable to his interests and abilities.
- OR
- 3. Leave Miami-Dade and accept a job suitable to his interests and abilities.

4. Leave Miami-Dade and begin training and/or education elsewhere suitable to his interests and abilities.

In addition, the remediated CCS student will exhibit the following affective changes:

5. Evidence a realistic change in self-concept in a positive direction in the following two ways:
 - a. Positive direction on a standardized pre- and post-test of self-concept;
 - b. Selection of a feasible vocational or academic goal.
6. Evidence the development of healthy attitudes and interests on the following scales:
 - a. Pre- and post-tests standardized on national norms;
 - b. Anecdotal faculty records.
7. Evidence positive direction on pre- and post-tests of values and personality.
8. Evidence significantly higher growth rates than the control groups in the basic educational areas; namely, language arts, reading, quantitative skills, problem solving, etc. (See next section for behavioral objectives by component-course as well as standardized measurements for comparative data gatherings.)

F. Component Courses and Their Behavioral Goals:

1. English/communications courses utilize some rather unique methods in order to effect statistically significant growth in the language arts areas relative to other scholastic success as well as the attainment of the objectives of English 090, 091, and 101-02. The CCS graduate will be able to respond, communicate, or operate scribally or orally well enough to achieve success in the regular college courses. Some of the unique features of the CCS English

101-02 courses are as follows:

- a. Fader-techniques (softbound books, periodicals, reading rooms, journals)
 - b. Oral-Aural approach to writing using an automated writing lab
 - c. Open-ended problem-solving situations
2. Reading Clinic: It has been the desire to effect a radical change in the reading programs offered mainly under the rubric "English 090." Simply stated, the objective is to create a reading clinic to replace the present reading classes. Since a clinic by definition functions individually, diagnostically, and therapeutically, its functions and goals will, to a large extent, be determined by characteristics of its clientele. For this reason, it is of greater importance to state the operations of the clinic and its clinicians than to delineate the hoped-for reading behaviors of remediated students. Suffice it to say that CCS students will exhibit from two to four grade levels of growth depending upon individual differences.

The CCS Reading Clinic performs the following functions:

- a. Diagnoses all visual defects relative to the process of reading.
- b. Diagnoses all psycho-motor skill levels relative to the process of reading.
- c. Assesses levels of mental (cognitive) functions relative to the process of reading.
- d. Corrects identified visual defects within the purview of the following considerations:

- (1) Professional limitations of clinical staff
(including part-time optometrist)

- (2) Technical limitations of clinic's equipment
- e. Should required remediation be beyond the scope of (1) and/or (2), the Reading Clinic will refer such cases to Allied Health's Optometric Clinic for more extensive care.
- f. Remediates deficient psycho-motor skill areas through the individually prescribed use of clinical equipment and techniques.
- g. Remediates deficient cognitive functions through the individually prescribed use of individualized clinical materials.
- h. Discharges CCS students from the Reading Clinic when reading abilities approximate levels discussed in introduction.
- i. Maintains comprehensive observations of student's health via the following techniques:
 - (1) Eye movement via Reading Eye Camera.
 - (2) General health level for possible referral to a physician via informal observation.
- 3. Career Counseling Component: This aspect of the CCS teaching team will serve a central function as regards the general objectives of the program. There are four specific instructional aims for this area:
 - a. The fostering of positive self-concept in terms of abilities, interests, backgrounds, values, etc. an analysis of personal educational case histories and results of selected standardized tests. (Who Am I?)
 - b. The identification of a realistic, feasible career choice. ("Career" is meant here in its widest possible connotation rather than the narrow term, "Vocational.") This choice will be made on the basis of observations of existing careers in

process, facilitated by group and individual counseling, field trips, visiting consultants, etc. (Where Am I Going?)

- c. The implementation of the meaningful career choice via group and individual counseling regarding requisite subjects, study methods, etc. (How Do I Get There?)
- d. Throughout the program, the adjustment to college life through effective orientation counseling.

Following the remediation of CCS Career Counseling, the student will:

- (1) Possess a more realistic self-concept
- (2) Have made a feasible career choice
- (3) Know how to plan effective implementation of said choice

It is hoped that a "counseling approach" will permeate the entire vertical team, affecting all of its activities. To this end, it is planned that the counselor will lead the entire verticle team, influencing all of its activities; it is planned that the counselor will exercise a great deal of leadership within the team, especially during the "case-study" weekly team conference. In addition, members of the regular college counseling staff will be available on a part-time volunteer, primary consultant basis to assist the CCS staff.

- 4. Social Science: The social science component will meet all the behavioral objectives of Social Science 101-102 through the use of high-interest, current topics and materials. The student will be able to understand the nature of his community -- local, state, and national. He will be able to relate his personal problems to those held collectively by his generation as well as society. Finally, he will be exposed to some of the solutions, agencies,

etc., born through man's efforts to come to grips with his problems. Given a year of CCS social science training, the student will be able to perform the following:

- a. Articulate three or four environmental influences on his own personality.
 - b. Enumerate a given number of social values important to his own self-concept.
 - c. Enumerate a given number of personal values important to his own self-concept.
 - d. Given a hypothetical or real social problem, the student will be able to produce (scribal, oral, photographic) evidence of his ability to reason to a solution using scientific methods.
5. Biology 100: Biology 100 in the Community College Studies program is designed to raise the student's interest in science and provide him with an opportunity to remediate obvious deficiencies in science and math skills. The learning modes for the student include large-group meetings, small-group activities, and individually prescribed activities. The biology in this course has a strong emphasis on man and his needs with units on the physiology of the body (reproduction, drug usages, etc.) and man and his environment.
6. Physics 290: Physics 290 in the Community College Studies program is designed to provide a standard introduction to the principal ideas of physics and chemistry, but with strong emphasis on student involvement and participation. The student is required to select and develop a hypothesis related to his interests and apply the techniques of physics, chemistry, and other scientific disciplines

to it. In addition, the course reviews mathematics and statistics as needed.

In both science programs, the process skills and cognitive operations of the "scientific mind" are stressed rather than the memorization of scientific facts or data.

II. Schedule

A. Faculty: There are five members assigned to each vertical team:

1. English/communications specialist (Eng. 101-02, 6 hrs. cr.)
2. Reading clinician (Reading 101-02, 6 hrs. cr.)
3. Career planning counselor (Educ. 270-71, 6 hrs. cr.)
4. Social science specialist (SSC 101-02, 6 hrs. cr.)
5. Natural science specialist (Bio. 100/Phy. 290, 6 hrs. cr.)

Each vertical team teaches a group of 113 students broken down into five groups of 23 students per instructor. Each teacher in the CCS program will be assigned four hours per teaching group or a total of 20 hours per week (4 hours per group x 5 groups per team = 20.) It is anticipated that $\frac{1}{4}$ (25%) of this time allotment will be used for individual teacher-student conferences; therefore, the actual teaching load will equal 15 contact hours. In addition, the vertical-team case conference will require two hours per week to maintain constant student evaluation. Finally, two hours per week will be set aside for "horizontal" subject-area conferences. This results in a 24-hour week not counting activity periods and general office hours. These requirements necessitate a full-time CCS instructional staff.

B. Students: The 450 CCS students voluntarily divided themselves into four 113 member groups. One basis for choice might be a preference for Black Studies; another could be a language difficulty. Some administrative balancing was necessary.

RESEARCH DESIGN

EXPERIMENTAL AND QUASI-EXPERIMENTAL DESIGNS
FOR RESEARCH ON TEACHING
BY DONALD T. CAMELL AND JULIAN C. STANLEY
CH. 5 IN HANDBOOK OF RESEARCH TEACHING
N.L. GAGE, EDITOR

THE POSTTEST-ONLY
CONTROL GROUP DESIGN

While the pretest is a concept deeply embedded in the thinking of research workers in education and psychology, it is not actually essential to true experimental designs. For psychological reasons it is difficult to give up "knowing for sure" that the experimental and control groups were "equal" before the differential experimental treatment. Nonetheless, the most adequate all-purpose assurance of lack of initial biases between groups is randomization. Within the limits of confidence stated by the tests of significance, randomization can suffice without the pretest. Actually, almost all of the agricultural experiments in the Fisher (1925, 1935) tradition are without pretest. Furthermore, in educational research, particularly in the primary grades, we must frequently experiment with methods for the initial introduction of entirely new subject matter, for which pretests in the ordinary sense are impossible, just as pretests on believed guilt or innocence would be inappropriate in a study of the effects of lawyers' briefs upon a jury. Design 6 fills this need, and in addition is appropriate to all of the settings in which Designs 4 or 5 might be used, i.e., designs where true randomization is possible. Its form is as follows:

R	X	O ₁
R		O ₂

While this design was used as long ago as the 1920's, it has not been recommended in most methodological texts in education. This has been due in part to a confusion of it with Design 3, and due in part to

distrust of randomization as equation. The design can be considered as the two last groups of the Solomon Four-Group Design, and it can be seen that it controls for testing as main effect and interaction, but unlike Design 5 it does not measure them. However, such measurement is tangential to the central question of whether or not X did have an effect. Thus, while Design 5 is to be preferred to Design 6 for reasons given above, the extra gains from Design 5 may not be worth the more than double effort. Similarly, Design 6 is usually to be preferred to Design 4 unless there is some question as to the genuine randomness of the assignment. Design 6 is greatly underused in educational and psychological research.

However, in the repeated-testing setting of much educational research, if appropriate antecedent variates are available, they should certainly be used for blocking or leveling, or as covariates. This recommendation is made for two reasons: first, the statistical tests available for Design 4 are more powerful than those available for Design 6. While the greater effort of Design 4 outweighs this gain for most research settings, it would not do so where suitable antecedent scores were automatically available. Second, the availability of pretest scores makes possible examination of the interaction of X and pretest ability level, thus exploring the generalizability of the finding more thoroughly. Something similar can be done for Design 6, using other available measures in lieu of pretests, but these considerations, coupled with the fact that for educational research frequent testing is characteristic of the universe to which one wants to generalize, may reverse the case for generally preferring Design 6 over Design 4. Note also that for any substantial mortality between R and the posttest, the pretest data of Design 4 offer more opportunity to rule out the hypothesis of differential mortality between experimental and control groups. Even so, many problems exist for which pretests are unavailable, inconvenient,

or likely to be reactive, and for such purposes the legitimacy of Design 6 still needs emphasis in many quarters. In addition to studies of the mode of teaching novel subject materials, a large class of instances remains in which (1) the X and posttest O can be delivered to students or groups as a single natural package, and (2) a pretest would be awkward. Such settings frequently occur in research on testing procedures themselves, as in studies of different instructions, different answer-sheet formats, etc. Studies of persuasive appeals for volunteering, etc., are similar. Where student anonymity must be kept, Design 6 is usually the most convenient. In such cases, randomization is handled in the mixed ordering of materials for distribution.

SELF-RATING SCALE

The Self-Rating Scale (SRS) was developed specifically for use with Cattell's 16 Personality Factor test (16 PF) in the evaluation of the Community College Studies Program (CCS) at Miami-Dade. Naming it and using it as a self concept measure is valid only after the following conditions are understood.

One of the major concerns or goals of the CCS Program was whether the students would make realistic life-decisions following the type of experiences they had in the CCS Program. It follows that before a decision could be made and later labeled as realistic or appropriate, the student would need to be as fully and realistically aware of himself as a person as he possibly could. The SRS was devised merely to evaluate how accurate or realistic a person was in perceiving various aspects of his personality. In this case, the various aspects of personality were measured by the 16 PF and reported in sten scores (standard ten).

The SRS consists of the same 16 personality variables factor-analyzed and delineated by the 16 PF, and listed in the form of 16 scales or continuums. Each scale was divided into 10 areas to coincide with the sten scores obtained from the 16 PF. Descriptive terms and personality traits were listed under each end of the scale and the student was asked to indicate where he felt he would rate on each of the 16 personality scales. These subjective ratings or impressions were then compared to the student's "objective" scores on the 16 PF, and deviation scores were obtained. These deviation scores represent the amount of perceptual distortions exhibited by the rater, or, how realistic the rater is in appraising his own personality.

Since the final definition of the self-concept has not been agreed upon as yet, operational definitions must suffice. However, most people will agree that the self-concept can be defined as how a person feels about himself,

based on his perceptions concerning himself (his personality) and his interactions with his environment, both physical and mental. For this study, if we accept the definition of personality as that which is measured by the 16 PF test, then how accurately a person perceives and rates his personality traits indicates the accuracy of his self-concept.

The use of self-ratings and their relationship to the self-concept has been investigated and reported in the literature for nearly 20 years. In one research study conducted in 1965, reliability coefficients as high as .88 were obtained from an instrument similar to the one used in the CCS evaluation. The 1965 study concerned itself with only one aspect of personality, namely intelligence. Intelligence was only one of the 16 scales used in the present evaluation. The SRS has about as much content validity as any typical pencil and paper personality check-list. Although specific reliability coefficients were not obtained for the SRS used in the present study, similar types of self-rating scales have yielded fairly high reliability figures, many in the .80's and .90's.

SELF-RATING PERSONALITY SCALE

NAME: _____ DATE: _____
 Last First
 AGE: _____ SEX: _____

Directions: Below you will find 16 rating scales which are concerned with different aspects or characteristics of a person's personality, or way of behaving. You are to use these scales to indicate just how you see yourself and your personality. The words and phrases listed below each end of the scale are to help you picture in your mind the characteristic or personality trait you are rating. Keep in mind that the trait being measured runs from one end of the scale (1), through the average or in between (5 and 6), to the other end of the scale (10). Remember, this rating scale is about how you really see yourself. Please try and be honest in your ratings. Your responses will be kept private and confidential and will not affect your record at MDJC.

The following two scales have been marked in order to show how the rating scale is to be completed. The first one deals with height and the second one with weight.

V

1	2	3	4	X	5	6	7	8	9	10
SMALL IN STATURE					IN BETWEEN			TALL IN STATURE		
SHORTER THAN AVERAGE					AVERAGE			TALLER THAN AVERAGE		

Z

1	2	3	4	5	6	7	8	X	9	10
THIN				IN BETWEEN						HEAVY
LIGHT IN WEIGHT				AVERAGE						

In the first example, the person sees himself as slightly below average in height. Therefore, he has placed his mark to the left of the part of the scale that indicates the "AVERAGE" range in height.

In the second example, the person sees himself as being on the heavy side. Therefore, he has placed his mark far to the right-hand side of the scale, toward the "HEAVY" end.

A

1	2	3	4	5	6	7	8	9	10
RESERVED				IN BETWEEN				OUT-GOING	
ALOOF								SOCIABLE	
CAUTIOUS								EASY-GOING	

B

1	2	3	4	5	6	7	8	9	10
LESS INTELLIGENT				IN BETWEEN				MORE INTELLIGENT	
SLOW TO LEARN				AVERAGE				QUICK TO LEARN	

C

1	2	3	4	5	6	7	8	9	10
EASILY UPSET BY THINGS				IN	6	7	8	9	10
GETS EMOTIONALLY "SHOOK"				BETWEEN	NOT EASILY UPSET BY THINGS				
					STAYS EMOTIONALLY "COOL"				

E

1	2	3	4	5	6	7	8	9	10
SUBMISSIVE TO OTHERS				IN BETWEEN			ASSERTS ONESELF		
CONFORMING TO OTHERS							IS DOMINANT		
OBEDIENT TO OTHERS							IS AGGRESSIVE		
							IS STUBBORN		

F	1	2	3	4	5	6	7	8	9	10
	SERIOUS MINDED				IN BETWEEN			HAPPY-GO-LUCKY		
	QUIET							CAREFREE		
								ENTHUSIASTIC		
G	1	2	3	4	5	6	7	8	9	10
	NOT BOUND BY RULES				IN			FOLLOWS RULES CLOSELY		
	FEELS FEW OBLIGATIONS				BETWEEN			HAS "STICK TO IT" ATTITUDE		
H	1	2	3	4	5	6	7	8	9	10
	SHY				IN BETWEEN			SOCIALLY BOLD		
	TIMID							TAKES CHANCES		
	BASHFUL							LIKES ADVENTURE		
	WITHDRAWN							UNINHIBITED		
I	1	2	3	4	5	6	7	8	9	10
	SELF RELIANT				IN BETWEEN			DEPENDENT ON OTHERS		
	TOUGH MINDED							SENSITIVE TO OTHERS		
								GENTLE		
L	1	2	3	4	5	6	7	8	9	10
	EASY TO GET ALONG WITH				IN BETWEEN			HARD TO GET ALONG WITH		
	EASILY TRUSTS OTHERS							SUSPICIOUS OF OTHERS		
M	1	2	3	4	5	6	7	8	9	10
	CONVENTIONAL				IN BETWEEN			UNCONVENTIONAL		
	PRACTICAL MINDED							BOHEMIAN		
	DOWN-TO-EARTH									
N	1	2	3	4	5	6	7	8	9	10
	A STRAIGHT FORWARD PERSON				IN			A SHREWD PERSON		
	DOES NOT LOOK FOR "ANGLES"				BETWEEN			WORLDLY, AMBITIOUS		
								CALCULATING		
O	1	2	3	4	5	6	7	8	9	10
	CALM				IN BETWEEN			ANXIOUS		
	SELF-ASSURED							WORRIED		
	CONFIDENT IN ONESELF							TROUBLED		
O ₁	1	2	3	4	5	6	7	8	9	10
	LIKES THINGS AS THEY ARE				IN			WANTS MANY CHANGES		
	CONSERVATIVE				BETWEEN			LIBERAL VIEWPOINT		
	RESPECTS ESTABLISHED IDEALS							CRITICAL OF THINGS		
								LIKES TO EXPERIMENT		
O ₂	1	2	3	4	5	6	7	8	9	10
	A FOLLOWER				IN BETWEEN			A LEADER		
	GOES ALONG WITH THE GROUP							PREFERS OWN DECISIONS		
								AND PLANS		
O ₃	1	2	3	4	5	6	7	8	9	10
	WEAKER WILL POWER				IN BETWEEN			STRONGER WILL POWER		
	HAS A "CASUAL" ATTITUDE							CONCERNED WITH BEING		
								SOCIALLY "CORRECT"		
O ₄	1	2	3	4	5	6	7	8	9	10
	RELAXED				IN BETWEEN			TENSE		
	AT EASE							HIGH STRUNG		
	COMPOSED							EXCITABLE		

SELF-RATING PERSONALITY SCALE

The following is a description of the Self-Rating Scale variables (scales) and the words used to describe the personality traits measured by the test.

VARIABLE	LOW SCORE DESCRIPTION						HIGH SCORE DESCRIPTION			
	1	2	3	4	5	6	7	8	9	10
A	Reserved, Aloof, Cautious						Out-going, Sociable, Easy-going			
B	Less intelligent, Slow to learn						More intelligent, Quick to learn			
C	Easily upset by things, Gets emotionally "shook"						Not easily upset by things, Stays emotionally "cool"			
E	Submissive to others, Conforming to others, Obedient to others						Asserts oneself, Is dominant, Is aggressive, Is stubborn			
F	Serious minded, Quiet						Happy-go-lucky, Carefree, Enthusiastic			
G	Not bound by rules, Feels few obligations						Follows rules closely, Has "stick-to-it" attitude			
H	Shy, Timid, Bashful, Withdrawn						Socially bold, Takes chances, Likes adventure, Uninhibited			
I	Self reliant, Tough-minded						Dependent on others, Sensi- tive to others, Gentle			
L	Easy to get along with, Easily trusts others						Hard to get along with, Suspicious of others			
M	Conventional, Practical minded, Down-to-earth						Unconventional, Bohemian			
N	A straight forward person, Does not look for "angles"						A shrewd person, Worldly, Ambitious, Calculating			
O	Calm, Self-assured, Confident in oneself						Anxious, Worried, Troubled			
Q ₁	Likes things as they are, Conservative, Respects established ideals						Wants many changes, Liberal viewpoint, Critical of things, Likes to experiment			
Q ₂	A follower, Goes along with the group						A leader, Prefers own decisions and plans			
Q ₃	Weaker will power, Has a "casual" attitude						Stronger will power, Concerned with being socially "correct"			
Q ₄	Relaxed, At ease, Composed						Tense, High-strung, Excitable			

16 PF TEST

The following is a description of the 16 PF variables (scales) and the words used to describe the personality traits measured by the test.

VARIABLES	LOW SCORE DESCRIPTION							HIGH SCORE DESCRIPTION		
	1	2	3	4	5	6	7	8	9	10
A	Reserved, Detached, Aloof Critical							Outgoing, Warmhearted, Easy-going		
B	Less intelligent, Concrete thinking							More intelligent, Abstract-thinking, Bright		
C	Affected by feelings, Emotionally less stable							Emotionally stable, Faces reality, Calm, Mature		
E	Humble, Mild, Accommodating, Conforming							Assertive, Aggressive, Stubborn Competitive		
F	Sober, Prudent, Serious, Taciturn							Happy-go-lucky, Impulsively lively, Enthusiastic		
G	Expedient, Disregards rules, Feels few obligations							Conscientious, Persevering Staid, Moralistic		
H	Shy, Restrained, Timid, Threat-sensitive							Venturesome, Socially bold, Uninhibited, Spontaneous		
I	Tough-minded, Self-reliant, Realistic, No-nonsense							Tender-minded, Clinging, Over-protected, Sensitive		
L	Trusting, Adaptable, Free-of-jealousy, Easy to get along with							Suspicious, Self-opinionated, Hard to fool		
M	Practical, Careful, Conventional, Regulated by external realities							Imaginative, Wrapped up in inner urgencies, Bohemian		
N	Forthright, Natural, Artless, Unpretentious							Shrewd, Calculating, Worldly, Penetrating		
O	Self-assured, Confident, Serene							Apprehensive, Self-reproaching, Worrying, Troubled		
Q ₁	Conservative, Respecting established ideas							Experimenting, Liberal, Analytical		
Q ₂	Group-dependent, A "joiner" and sound follower							Self-sufficient, Prefers own decisions, Resourceful		
Q ₃	Undisciplined self-conflict, Follows own urges							Controlled. Socially precise, Following self-image		
Q ₄	Relaxed, Tranquil, Unfrustrated							Tense, Frustrated, Driven, Overwrought		

TABLE 1 16 P.F. (ALL STUDENTS)

	ALL (N= 522)	E (N= 302)	C ₁ (N=95)	C ₂ (N=55)	E vs C ₁	E vs C ₂	C ₁ vs C ₂
A	5.19	5.24	5.17	4.98	0.29	0.87	0.53
B	3.63	3.61	3.60	3.76	0.06	0.64	0.59
C	5.25	5.30	5.21	5.11	0.35	0.61	0.29
E	6.60	6.63	6.38	6.87	0.96	0.81	1.37
F	5.51	5.43	5.53	5.96	0.46	1.63	1.22
G	4.90	4.83	5.13	4.84	1.31	0.00	0.94
H	5.06	5.07	4.88	5.20	0.83	0.44	0.99
I	5.80	5.88	5.61	5.67	1.31	0.67	0.19
L	5.92	6.05	5.89	5.25	0.67	2.75**	1.98*
M	6.37	6.33	6.36	6.64	0.13	1.23	0.93
N	5.61	5.64	5.44	5.73	1.01	0.26	0.83
O	5.21	5.08	5.54	5.53	2.07*	1.48	0.02
Q1	5.20	5.18	5.06	5.64	0.50	1.56	1.76
Q2	5.91	5.96	5.63	6.04	1.66	0.25	1.39
Q3	4.91	4.83	5.02	5.11	0.92	1.00	0.28
Q4	5.85	5.92	5.73	5.71	0.76	0.68	0.05

* Significant at the .05 level ** Significant at the .01 level *** Significant at the .001 level.

TABLE 2A 16 P.F. (BY RACE)

	ALL (N=522) W(N=239) B(N=183)		SP(N=100)		E (N=347) W(N=157) B(N=116)		SP(N=74)	W vs B	W vs SP	R vs SP	E-N vs C ₁ -W	E-N vs C ₂ -W	C ₁ -W vs C ₂ -W
A	5.35	5.05	5.13	5.13	5.52	5.06	5.00	1.32	0.86	0.28	1.28	1.14	0.15
B	3.85	3.48	3.43	3.43	3.88	3.44	3.39	2.14*	1.95	0.22	0.03	0.55	0.52
C	5.09	5.08	5.47	5.47	5.22	5.12	5.69	0.97	0.68	1.48	1.10	0.32	1.10
E	6.87	6.30	6.58	6.58	6.71	6.55	6.59	2.55*	1.14	1.09	0.33	2.73**	1.88
F	5.62	5.30	5.55	5.55	5.41	5.36	5.54	1.47	0.09	1.39	1.51	1.34	0.15
G	4.57	5.32	4.84	4.84	4.61	5.25	4.63	3.92**	1.22	2.06*	0.09	0.82	0.60
H	5.07	4.96	5.19	5.19	4.96	5.01	5.41	0.54	0.44	0.87	0.41	1.61	1.00
I	5.39	6.27	5.83	5.83	5.43	6.43	5.89	4.40**	1.90	1.90	0.10	0.55	0.45
L	5.89	6.09	5.69	5.69	5.95	6.30	5.86	0.95	0.77	1.53	0.30	1.46	1.53
M	6.14	6.43	6.75	6.75	6.02	6.46	6.71	1.47	2.52*	1.25	1.50	0.31	0.91
N	5.63	5.41	5.91	5.91	5.55	5.44	6.13	1.11	1.11	1.95	0.32	1.18	0.84
O	5.00	5.43	5.27	5.27	4.82	5.35	5.03	1.92	1.22	0.66	0.99	1.65	0.78
Q1	5.10	5.27	5.31	5.31	5.15	5.18	5.20	0.81	0.87	0.16	1.01	0.56	1.26
Q2	6.03	5.48	6.39	6.39	6.35	5.20	6.43	2.88**	1.56	3.83***	3.48**	2.12*	0.63
Q3	4.67	5.13	5.01	5.01	4.61	4.98	5.01	2.49*	1.50	0.51	0.13	0.95	0.77
Q4	5.92	5.80	5.78	5.78	6.05	5.85	5.76	0.58	0.56	0.06	0.34	1.75	1.17

* Significant at the .05 level ** Significant at the .01 level *** Significant at the .001 level.

TABLE 2B 16 P.F. (BY RACE)

	C ₁ (N=112) W (N=51) B (N=47) SP (N=14)		C ₂ (N=63) W (N=31) B (N=20) SP (N=12)		E-B vs C ₁ -B		E-B vs C ₂ -B		C ₁ -B vs C ₂ -B		E-SP vs C ₁ -SP		E-SP vs C ₂ -SP		C ₁ -SP vs C ₂ -SP	
A	5.04	5.17	5.57	4.96	4.79	5.33	0.27	0.51	0.62	1.03	0.59	0.34				
B	3.88	3.34	3.43	3.67	3.95	3.67	0.31	1.34	1.39	0.07	0.49	0.31				
C	5.63	4.55	5.71	5.08	5.89	3.92	1.62	1.42	2.28*	0.04	2.82**	2.15*				
E	6.84	5.84	6.43	7.79	5.79	6.75	1.80	1.45	0.09	0.24	0.25	0.38				
F	6.00	4.89	5.79	6.08	5.74	6.08	1.65	0.61	0.35	0.51	0.76	0.38				
G	4.58	5.66	5.36	4.33	5.05	5.50	1.15	0.42	1.13	1.36	1.41	0.19				
H	5.12	4.74	4.57	5.58	5.11	4.58	0.73	0.21	0.71	1.39	1.23	0.01				
I	5.40	5.76	5.86	5.17	6.42	5.50	2.07*	0.01	1.18	0.06	0.62	0.50				
L	6.05	6.05	5.00	5.29	5.05	5.50	0.68	2.51*	1.84	1.40	0.55	0.61				
M	6.51	6.05	6.71	6.13	7.05	7.00	1.05	1.43	1.98*	0.00	0.48	0.38				
N	5.65	5.18	5.50	6.04	5.74	5.08	0.83	0.47	0.83	1.33	1.43	0.52				
O	5.19	5.89	5.64	5.63	4.95	6.25	1.43	0.65	1.44	1.21	2.28*	0.89				
Q ₁	4.79	5.32	5.21	5.38	5.68	6.08	0.43	0.84	0.60	0.03	1.41	1.13				
Q ₂	5.33	5.76	6.21	5.58	6.42	6.33	1.65	2.81**	1.34	0.45	0.14	0.16				
Q ₃	4.65	5.42	5.07	5.00	5.37	4.92	1.29	0.95	0.11	0.11	0.12	0.17				
Q ₄	5.91	5.61	5.50	5.29	5.89	6.25	0.67	0.09	0.50	0.48	0.73	0.94				

* Significant at the .05 level.

** Significant at the .01 level.

*** Significant at the .001 level.

TABLE 2C 16 P.F. (BY RACE)

	ALL			E			C1			C2		
	W-B	W-SP	B-SP	W-B	W-SP	B-SP	W-B	W-SP	B-SP	W-B	W-SP	B-SP
A	1.32	0.86	0.28	1.77	1.67	0.19	0.26	0.89	0.64	0.25	0.55	0.78
B	2.14*	1.95	0.22	1.96*	1.87	0.20	1.52	0.76	0.14	0.57	0.00	0.44
C	0.97	0.68	1.48	0.35	1.53	1.85	2.48*	0.13	1.74	1.28	1.68	2.56*
E	2.55*	1.14	1.09	0.55	0.41	0.10	2.04*	0.58	0.85	3.34**	1.48	0.24
F	1.47	0.09	1.39	0.17	0.40	0.59	2.83**	0.41	1.92	0.47	0.00	0.39
G	3.92**	1.22	2.06*	2.68**	0.06	2.28*	2.54*	1.36	0.51	1.37	1.78	0.62
H	0.54	0.44	0.87	0.18	1.42	1.27	0.83	0.85	0.26	0.90	1.41	1.70
I	4.40**	1.90	1.90	3.97**	1.58	1.95	0.97	0.96	0.19	1.92	0.46	0.21
L	0.95	0.77	1.53	1.27	0.28	1.36	0.02	1.68	1.67	0.39	0.29	0.60
M	1.47	2.52*	1.25	1.77	2.33*	0.83	1.03	0.35	1.09	1.90	1.39	0.08
N	1.11	1.11	1.95	0.46	1.93	2.29*	1.27	0.31	0.66	0.42	1.22	1.71
O	1.92	1.22	0.66	1.91	0.81	1.11	1.57	0.80	0.45	0.92	0.92	0.70
Q1	0.81	0.87	0.16	0.12	0.17	0.06	1.38	0.73	0.18	0.46	1.04	0.49
Q2	2.88**	1.56	3.83**	4.79**	0.29	4.26**	1.15	1.81	0.88	1.64	1.07	0.12
Q3	2.49*	1.50	0.51	1.60	1.51	0.12	1.98*	0.79	0.63	0.70	0.10	0.53
Q4	0.58	0.56	0.06	0.73	0.95	0.29	0.64	0.68	0.18	0.96	1.29	0.44

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 3 16 PF (RV SUR)

	ALL (N=352) M (N=276) F (N=176)	P (N=302) M (N=181) F (N=121)	T (N=95) M (N=58) F (N=37)	T (N=55) M (N=37) F (N=18)	ALL M vs F	F vs T	T vs P	P vs ALL
A	5.09	5.12	5.43	5.19	5.44	1.46	1.31	0.15
B	3.62	3.63	3.58	3.62	4.22	0.14	0.20	0.15
C	5.18	5.27	5.32	5.12	5.78	1.09	0.19	0.54
E	6.95	6.91	6.20	6.83	7.32	4.45***	3.99**	2.40*
F	5.40	5.24	5.71	5.60	6.11	1.45	1.93	0.37
G	4.69	4.69	5.05	4.83	5.67	3.18**	1.70	2.11*
H	5.18	5.21	4.88	5.10	5.28	1.70	1.47	0.21
I	4.90	4.95	7.28	4.88	7.67	16.12***	12.92***	7.43***
L	5.95	6.10	5.97	6.02	5.56	0.41	0.53	0.72
M	6.37	6.30	6.38	6.53	6.94	0.92	0.37	1.09
N	5.60	5.61	5.69	5.43	5.84	0.11	0.36	0.55
O	5.04	4.81	5.41	5.41	5.44	2.34*	2.62**	1.29
Q1	5.31	5.28	5.01	5.10	5.76	1.37	1.12	0.61
Q2	6.21	6.37	5.36	5.83	6.06	4.56***	6.63***	0.96
Q3	4.98	4.92	4.80	4.98	4.79	1.17	1.11	0.26
Q4	5.51	5.58	6.40	5.24	5.59	4.56***	3.57**	0.61

*Significant at the .05 level.

**Significant at the .01 level.

***Significant at the .001 level.

TABLE 4 SELF-RATING SCALE (ALL STUDENTS)

	ALL (N=406)	E (N=275)	C ₁ (N=82)	C ₂ (N=49)	E vs C ₁	E vs C ₂	C ₁ vs C ₂
A	6.76	6.93	6.42	6.41	2.17*	1.43	0.04
B	5.99	5.87	6.47	5.90	1.01	0.17	0.91
C	6.39	6.52	6.12	6.11	1.46	1.38	0.01
E	5.47	5.46	5.59	5.30	0.54	0.62	0.94
F	5.56	5.54	5.42	5.90	0.47	0.92	1.13
G	5.78	5.72	5.73	6.16	0.02	1.63	1.40
H	6.41	6.41	6.42	6.36	0.03	0.17	0.17
I	4.95	5.00	4.86	4.83	0.48	0.55	0.07
L	3.56	3.56	3.42	3.80	0.63	0.83	1.18
M	4.14	4.06	4.40	4.17	1.66	0.39	0.73
N	5.20	5.21	5.21	5.16	0.01	0.18	0.15
O	4.77	4.74	4.85	4.78	0.37	0.13	0.19
Q ₁	5.68	5.66	5.47	6.14	0.62	1.48	1.67
Q ₂	5.93	5.93	5.99	5.81	0.27	0.46	0.59
Q ₃	6.18	6.15	6.16	6.42	0.04	1.09	0.87
Q ₄	4.65	4.66	4.74	4.49	0.31	0.55	0.71

*Significant at the .05 level.

** Significant at the .01 level.

*** Significant at the .001 level.

TABLE 5A. SELF-RATING SCALE (BY RACE)

	ALL (N=522) W (N=239) B (N=183)		W (N=347) W (N=157) B (N=116)		SP (N=74)		W vs B	N vs SP	B vs SP	E-W vs C ₁ -W	E-W vs C ₂ -W	C ₁ -W vs C ₂ -W
A	6.89	6.75	6.53	6.96	6.84	7.01	0.61	1.28	0.77	0.29	0.76	0.52
B	5.60	6.64	5.74	5.62	6.26	5.77	2.93**	0.73	2.37*	0.65	0.25	0.67
C	6.37	6.63	6.00	6.37	6.71	6.54	1.04	1.30	2.09*	0.18	0.35	0.45
E	5.64	5.24	5.49	5.66	5.22	5.44	1.90	0.62	0.98	0.01	0.46	0.40
F	5.81	5.17	5.72	5.68	5.25	5.73	2.57*	0.30	1.89	0.56	1.25	0.83
G	5.53	6.01	5.91	5.56	5.86	5.83	2.36*	1.42	0.36	0.79	0.31	0.86
H	6.51	6.15	6.60	6.50	6.18	6.60	1.55	0.31	1.47	0.52	0.32	0.66
I	4.87	4.72	5.51	4.78	4.96	5.51	0.67	2.10*	2.53*	0.80	0.56	0.24
L	3.27	3.81	3.76	3.33	3.76	3.72	2.68**	1.68	0.18	1.14	0.15	0.90
M	4.07	4.13	4.34	3.93	4.08	4.30	0.28	1.07	0.84	2.16*	0.60	0.71
N	5.02	5.16	5.68	5.01	5.06	5.86	0.67	2.45*	1.90	0.82	0.79	1.32
O	5.01	4.68	4.39	4.92	4.78	4.31	1.33	1.99*	0.91	0.36	1.10	0.54
Q ₁	5.96	5.64	5.15	5.97	5.60	5.13	1.31	2.30*	1.33	0.61	0.99	1.22
Q ₂	6.07	5.81	5.81	6.16	5.76	5.72	1.34	1.08	0.00	0.96	0.82	0.02
Q ₃	6.00	6.36	6.29	6.01	6.24	6.30	1.71	1.25	0.25	0.25	0.17	0.34
Q ₄	4.53	4.60	5.01	4.56	4.60	4.95	0.34	1.58	1.32	0.55	1.34	1.51

* Significant at the .05 level

** Significant at the .01 level.

*** Significant at the .001 level.

TABLE 5B SELF-RATING SCALE (BY RACE)

	C ₁ (N=112) W (N=51) B (N=47) SP (N=14)		C ₂ (N=63) W (N=31) B (N=20) SP (N=12)		E-B vs C ₁ -B		E-B vs C ₂ -B		C ₁ -B vs C ₂ -B		E-SP vs C ₁ -SP		E-SP vs C ₂ -SP		C ₁ -SP vs C ₂ -SP	
A	6.85	6.36	5.42	6.54	7.03	5.11	1.35	0.29	0.95	0.95	2.57*	3.30**	0.41			
B	5.45	7.76	5.82	5.70	6.49	5.44	1.07	0.57	0.88	0.88	0.12	1.36	0.92			
C	6.30	6.35	5.00	6.49	6.83	4.11	0.75	0.24	0.81	0.81	2.27*	3.24**	0.94			
E	5.67	5.32	6.08	5.49	5.19	5.02	0.27	0.06	0.22	0.22	1.34	0.67	1.51			
F	5.88	5.02	5.28	6.37	5.01	6.23	0.55	0.34	0.01	0.01	0.72	0.57	0.94			
G	5.28	6.13	5.84	5.69	6.62	6.51	0.84	1.53	0.95	0.95	0.01	1.36	0.86			
H	6.68	5.90	7.08	6.36	6.56	6.02	0.65	0.60	0.95	0.95	0.74	1.00	1.41			
I	5.12	4.37	5.45	5.00	4.09	5.63	1.46	1.50	0.42	0.42	0.05	0.17	0.15			
L	2.98	3.83	3.49	3.39	4.05	4.34	0.18	0.55	0.40	0.40	0.32	0.91	0.98			
M	4.50	4.32	4.38	4.89	3.94	4.51	0.66	0.27	0.64	0.64	0.14	0.32	0.15			
N	5.28	5.34	4.66	4.73	5.29	5.97	0.80	0.49	0.11	0.11	1.65	0.21	1.63			
O	5.09	4.71	4.60	5.39	4.06	4.55	0.15	1.59	1.20	1.20	0.37	0.26	0.04			
Q1	5.66	5.49	4.90	6.37	6.19	5.56	0.25	0.85	0.93	0.93	0.24	0.54	0.59			
Q2	5.89	5.93	6.38	5.90	5.84	5.56	0.44	0.15	0.14	0.14	1.10	0.31	1.18			
Q3	5.92	6.38	6.23	6.07	6.98	6.34	0.38	1.48	1.11	1.11	0.11	0.09	0.15			
Q4	4.80	4.47	5.22	3.96	4.91	5.05	0.31	0.73	0.87	0.87	0.60	0.12	0.22			

* Significant at the .05 level.

** Significant at the .01 level.

*** Significant at the .001 level.

TABLE 5C SELF-RATING SCALE (BY RACE)

	ALL			E			C ₁			C ₂		
	W-B	W-SP	B-SP	W-B	W-SP	B-SP	W-B	W-SP	B-SP	W-B	W-SP	B-SP
A	0.61	1.28	0.77	0.42	0.16	0.51	1.20	2.26*	1.51	0.59	1.98*	2.34*
B	2.93**	0.73	2.37*	3.35**	0.62	1.90	1.64	0.81	1.34	1.67	0.82	2.67**
C	1.04	1.30	2.09*	1.92	0.52	0.48	0.09	1.82	1.79	0.70	3.18**	3.30**
E	1.90	0.62	0.98	1.67	0.73	0.69	0.77	0.82	1.44	0.51	0.71	0.22
F	2.57*	0.30	1.89	1.38	0.15	1.39	1.87	0.94	0.38	1.62	0.15	1.13
G	2.36*	1.42	0.36	1.13	0.79	0.10	2.14*	0.76	0.41	1.61	1.51	0.18
H	1.55	0.31	1.47	1.10	0.28	1.09	1.66	0.61	1.76	0.28	0.55	0.70
I	0.67	2.10*	2.53*	0.67	2.05*	1.53	1.44	0.34	1.10	1.41	0.83	1.76
L	2.68**	1.68	0.18	1.69	1.07	0.12	2.18*	0.76	0.49	1.07	1.33	0.38
M	0.28	1.07	0.84	0.64	1.21	0.71	0.48	0.18	0.10	0.39	0.44	0.72
N	0.67	2.45*	1.90	0.22	2.60**	2.34*	0.17	0.85	0.93	1.09	2.31*	1.13
O	1.33	0.99*	0.91	0.46	1.62	1.19	0.69	0.60	0.13	2.53*	0.89	0.52
Q ₁	1.31	2.30*	1.33	1.21	1.94	1.04	0.30	0.77	0.61	0.24	1.04	0.66
Q ₂	1.34	1.08	0.00	1.60	1.40	0.10	0.09	0.84	0.71	0.09	0.65	0.41
Q ₃	1.71	1.25	0.25	0.86	1.01	0.18	1.04	0.49	0.23	1.70	0.51	1.00
Q ₄	0.34	1.58	1.32	0.13	1.01	0.89	0.63	0.87	1.67	1.75	1.34	0.17

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 6 SELF-RATING SCALE (BY SEX)

	ALL (N=406)		F (N=275)		C ₁ (N=82)		C ₂ (N=49)		E		C ₁ VS F		C ₂ VS F		ALL	
	M (N=246)	F (N=160)	M (N=169)	F (N=106)	M (N=44)	F (N=38)	M (N=33)	F (N=16)	M VS F	F	M VS F	F	M VS F	F	M VS F	F
A	6.65	6.94	6.84	7.07	6.49	6.35	5.87	7.52	0.87		0.33		2.38*		1.41	
B	5.86	6.19	5.99	5.68	5.53	7.56	5.69	6.34	1.67		1.61		1.52		0.99	
C	6.80	5.77	6.97	5.81	6.48	5.70	6.35	5.63	4.10***		1.60		1.20		4.59***	
E	5.62	5.24	5.59	5.27	5.87	5.26	5.46	4.95	1.29		1.55		0.93		1.99*	
F	5.69	5.37	5.69	5.32	5.60	5.22	5.81	6.08	1.35		0.89		0.34		1.44	
G	5.81	5.73	5.82	5.56	5.40	6.10	6.25	5.98	1.07		1.81		0.59		0.39	
H	6.57	6.15	6.61	6.10	6.83	5.95	6.95	7.00	1.88		2.01*		1.49		1.93	
I	4.88	5.05	4.89	5.16	4.80	4.92	4.92	4.66	1.03		0.24		0.42		0.81	
L	3.58	3.53	3.58	3.53	3.44	3.39	3.77	3.86	0.22		0.13		0.14		0.28	
M	4.17	4.10	4.04	4.09	4.55	4.24	4.35	3.82	0.71		0.89		0.94		0.44	
N	5.43	4.85	5.46	4.89	5.43	4.96	5.39	4.88	2.87**		1.19		0.91		3.19**	
O	4.72	4.64	4.62	4.94	4.98	4.79	4.93	4.48	1.08		0.54		0.95		0.49	
Q ₁	5.83	5.46	5.80	5.45	5.59	5.32	6.32	5.79	1.22		0.47		0.77		1.59	
Q ₂	6.08	5.68	6.05	5.73	6.50	5.38	5.69	6.06	1.40		3.12**		0.60		2.20*	
Q ₃	6.24	6.10	6.24	6.00	6.30	5.99	6.16	6.96	1.01		0.75		1.63		0.76	
Q ₄	4.67	4.62	4.70	4.58	4.68	4.80	4.52	4.43	0.44		0.27		0.16		0.27	

* Significant at the .05 level

** Significant at the .01 level.

*** Significant at the .001 level.

TABLE 7 DEVIATION SCORE (ALL STUDENTS)

	E (N=250)	C ₁ (N=77)	C ₂ (N=48)	E VS C ₁	E VS C ₂	C ₁ VS C ₂
A	2.49	2.20	2.52	1.26	0.09	0.97
B	2.56	3.25	2.40	1.13	0.59	1.32
C	2.33	2.43	2.15	0.45	0.71	0.94
E	2.23	2.24	2.42	0.04	0.69	0.58
F	2.39	1.95	2.06	2.16*	1.34	0.36
G	2.00	2.00	1.97	0.01	0.10	0.09
H	2.29	2.28	1.76	0.04	2.57*	2.10*
I	2.27	2.21	2.22	0.24	0.19	0.03
L	2.93	2.92	2.37	0.02	1.85	1.51
M	2.76	2.37	2.71	1.69	0.15	1.00
N	2.07	1.85	2.06	1.21	0.02	0.86
O	2.38	2.49	2.14	0.45	0.90	1.07
Q ₁	2.49	2.34	2.08	0.68	1.71	0.90
Q ₂	1.80	1.88	1.75	0.40	0.23	0.49
Q ₃	2.10	2.04	2.07	0.30	0.13	0.08
Q ₄	2.46	2.36	1.89	0.42	2.16*	1.55

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 8 A DEVIATIONS SCORE (BY RACE)

	ALL (N=522)		E (N=347)		W vs B	W vs SP	B vs SP	E-W vs C ₁ -W	E-W vs C ₂ -W	C ₁ -W vs C ₂ -W
	W (N=239)	B (N=183)	SP (N=100)	W (N=157)	B (N=116)	SP (N=74)				
A	2.44	2.58	2.17	2.35	2.70	2.44	0.64	1.08	1.61	0.50
B	2.15	3.32	2.70	2.14	2.95	2.78	3.05**	2.18*	1.46	0.72
C	2.38	2.44	2.05	2.50	2.35	1.99	0.26	1.62	1.90	0.60
E	2.31	2.27	2.11	2.25	2.34	1.99	0.25	0.89	0.68	1.08
F	2.29	2.16	2.36	2.52	2.22	2.42	0.67	0.30	0.85	0.03
G	1.97	1.93	2.16	1.95	1.89	2.26	0.20	0.90	1.05	0.64
H	2.12	2.26	2.38	2.25	2.37	2.26	0.73	1.08	0.50	1.92
I	2.17	2.26	2.41	2.27	2.16	2.45	0.39	0.97	0.62	1.61
L	2.96	2.79	2.77	3.00	2.92	2.82	0.70	0.69	0.70	1.10
M	2.55	2.70	2.86	2.64	2.74	3.01	0.64	1.16	0.57	0.73
N	1.91	2.02	2.26	1.89	1.98	2.53	0.62	1.66	1.07	0.11
O	2.43	2.39	2.23	2.31	2.44	2.42	0.21	0.88	0.63	1.62
Q ₁	2.28	2.32	2.81	2.36	2.42	2.86	0.23	2.16*	1.97*	1.13
Q ₂	1.65	1.88	2.03	1.66	1.81	2.06	1.25	1.83	0.64	0.68
Q ₃	2.06	2.19	1.96	2.11	2.25	1.85	0.76	0.45	1.01	0.58
Q ₄	2.53	2.26	2.22	2.54	2.39	2.41	1.28	1.23	0.13	0.74

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 8 B DEVIATION SCORE (BY RACE)

	C ₁ (N=112) W (N=51) B (N=47) SP (N=14)		C ₂ (N=63) W (N=31) B (N=20) SP (N=12)		E-B vs C ₁ -B	E-B vs C ₂ -B	C ₁ -B vs C ₂ -B	E-SP vs C ₁ -SP	E-SP vs C ₂ -SP	C ₁ -SP vs C ₂ -SP		
A	2.72	1.92	1.45	2.44	3.22	1.57	2.37*	1.12	2.58**	2.01*	1.81	0.20
B	2.05	4.67	3.01	2.39	2.74	1.86	1.18	0.44	1.28	0.32	1.52	1.32
C	2.26	2.66	2.29	2.00	2.44	2.03	0.90	0.17	0.40	0.73	0.08	0.45
E	2.20	2.22	2.36	2.77	1.92	2.44	0.40	1.01	0.68	0.63	0.72	0.10
F	1.85	1.92	2.31	1.84	2.32	2.11	0.87	0.24	0.81	0.21	0.60	0.30
G	1.89	2.05	2.15	2.19	1.91	1.59	0.51	0.03	0.27	0.23	1.30	0.86
H	2.14	2.14	3.00	1.46	1.88	2.24	0.71	1.27	0.61	1.26	0.03	1.15
I	2.26	2.12	2.30	1.59	3.06	2.29	0.09	1.90	1.74	0.30	0.29	0.01
L	3.15	2.57	3.18	2.48	2.49	1.92	0.77	0.91	0.15	0.54	1.43	1.49
M	2.25	2.40	2.60	2.61	3.07	2.35	0.92	0.53	1.02	0.74	1.02	0.33
N	1.94	1.89	1.54	1.95	2.46	1.67	0.28	1.17	1.27	3.06**	1.79	0.27
O	2.97	2.27	1.80	2.22	2.28	1.73	0.37	0.30	0.01	1.51	1.15	0.11
Q ₁	2.34	2.09	2.90	1.80	2.25	2.42	0.99	0.41	0.36	0.07	0.95	0.72
Q ₂	1.72	2.11	1.75	1.50	1.81	2.20	0.82	0.01	0.51	0.84	0.28	0.86
Q ₃	1.87	2.19	2.14	2.10	1.87	2.30	0.19	0.94	0.67	0.61	0.60	0.20
Q ₄	2.66	2.38	1.58	2.25	1.28	2.05	0.03	3.02**	2.67**	2.10*	0.67	0.86

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 8 C DEVIATION SCORE (BY RACE)

	ALL			E			C1			C2		
	W-B	W-SP	B-SP	W-B	W-SP	B-SP	W-B	W-SP	B-SP	W-B	W-SP	B-SP
A	0.64	1.08	1.61	1.35	0.27	0.80	1.78	2.31*	0.95	1.29	1.48	2.82**
B	3.05**	2.18*	1.46	3.07**	2.17*	0.50	1.79	1.34	1.05	0.59	0.78	1.26
C	0.26	1.62	1.90	0.54	1.93	1.45	1.00	0.06	0.78	0.75	0.06	0.63
E	0.25	0.89	0.68	0.37	0.99	1.25	0.06	0.26	0.24	1.46	0.45	0.74
F	0.67	0.30	0.85	1.20	0.35	0.68	0.19	0.88	0.71	0.54	0.47	0.35
G	0.20	0.90	1.05	0.25	1.23	1.43	0.43	0.50	0.17	0.46	0.98	0.47
H	0.73	1.08	0.50	0.48	0.02	0.36	0.01	1.44	1.44	1.00	1.73	0.71
I	0.39	0.97	0.62	0.41	0.61	0.98	0.30	0.06	0.32	2.95**	1.26	1.15
L	0.70	0.69	0.70	0.26	0.53	0.28	1.06	0.05	0.83	0.01	0.75	0.80
M	0.64	1.16	0.57	0.35	1.13	0.72	0.37	0.61	0.35	0.64	0.37	0.87
N	0.62	1.66	1.07	0.38	2.37*	1.90	0.13	1.23	1.06	1.12	0.55	1.40
O	0.21	0.88	0.63	0.51	0.39	0.08	1.32	2.46*	0.88	0.10	0.76	0.73
Q1	0.23	2.16*	1.97*	0.25	1.64	1.41	0.60	0.90	1.34	0.90	1.17	0.32
Q2	1.25	1.83	0.64	0.66	1.49	0.85	2.03	0.08	0.84	0.56	1.39	0.59
Q3	0.76	0.45	1.01	0.66	0.92	1.41	0.88	0.58	0.10	0.47	0.25	0.54
Q4	1.28	1.23	0.13	0.55	0.44	0.04	0.61	2.33*	1.97*	1.88	0.33	1.39

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 9 DEVIATION SCORE (BY SEX)

	ALL (N=376)		I. (N=250)		C ₁ (N=77)		C ₂ (N=48)		ALL (N=16)		C ₁ VS F		C ₂ VS F	
	M (N=224)	F (N=152)	M (N=150)	F (N=100)	M (N=41)	F (N=36)	M (N=32)	F (N=16)	M VS F		M VS F		M VS F	
A	2.50	2.33	2.55	2.40	2.42	1.93	2.38	2.70	0.90		0.63	1.21	0.74	
B	2.54	2.89	2.63	2.46	2.28	4.39	2.46	2.28	1.03		0.74	1.64	0.35	
C	2.38	2.26	2.37	2.28	2.59	2.24	2.14	2.16	0.72		0.43	1.02	0.04	
E	2.41	2.02	2.36	2.03	2.45	1.98	2.61	2.05	2.28*		1.50	1.37	1.05	
F	2.44	2.00	2.63	2.03	2.04	1.86	2.02	2.12	2.52*		2.71**	0.54	0.18	
G	2.12	1.80	2.03	1.94	2.36	1.59	2.25	1.42	2.04*		0.50	2.24*	1.88	
H	2.18	2.28	2.28	2.30	2.31	2.25	1.55	2.18	0.55		0.00	0.15	1.52	
I	2.00	2.64	2.03	2.63	2.10	2.34	1.63	3.41	3.42**		2.49*	0.58	3.86***	
L	2.87	2.84	3.02	2.79	3.02	2.82	1.93	3.24	0.11		0.91	0.41	2.12*	
M	2.78	2.51	2.89	2.56	2.61	2.10	2.49	3.16	1.31		1.29	1.32	0.95	
N	2.11	1.80	2.16	1.92	1.87	1.84	2.18	1.83	1.43		1.22	0.11	0.79	
O	2.37	2.37	2.36	2.41	2.41	2.59	2.38	1.67	0.02		0.18	0.40	1.55	
Q ₁	2.50	2.27	2.59	2.34	2.44	2.22	2.15	1.93	1.28		1.07	0.56	0.54	
Q ₂	1.81	1.81	1.78	1.84	1.93	1.81	1.80	1.64	0.01		0.28	0.36	0.28	
Q ₃	2.09	2.07	2.11	2.08	2.09	1.90	2.00	2.21	0.10		0.15	0.28	0.40	
Q ₄	2.35	2.40	2.40	2.41	2.14	2.63	1.91	1.84	0.28		0.36	1.23	0.13	

* Significant at the .05 level

** Significant at the .01 level.

*** Significant at the .001 level.

TABLE 10 FTG (ALL)

	ALL (N=522)	E (N=341)	C ₁ (N=110)	C ₂ (N=63)	E VS C ₁	E VS C ₂	C ₁ VS C ₂
ENGLISH	14.84	15.41	12.81	15.53	1.63	0.05	0.95
MATH	16.80	15.83	17.69	20.24	1.00	1.59	0.83

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 11 FTG (BY RACE)

ALL (N=522) W(N=239) B(N=183)		SP(N=100)		E (N=347) W(N=157) B(N=116)		SP(N=74)		W VS B		W VS SP		B VS SP		F-W VS C ₁ -W		E-W VS C ₂ -W		C ₂ -W VS C ₂ -W	
ENGLISH	16.04	11.84	16.99	17.52	11.85	15.78	2.91**	0.28	2.50*	0.03	2.36*	0.03	1.18	0.35	0.26	0.61	0.03	0.03	0.03
MATH	16.88	14.54	20.85	16.45	13.51	18.40	1.38	1.77	2.80**	0.26	0.61	0.03	0.35	0.03	0.26	0.61	0.03	0.03	0.03
C ₁ (N=112) (N=51) W		(N=14) SP		(N=31) W		C ₂ (N=63) (N=21) B		E-B VS C ₁ -B		E-B VS C ₂ -B		C ₁ -B VS C ₂ -B		E-SP VS C ₁ -SP		E-SP VS C ₂ -SP		C ₁ -SP VS C ₂ -SP	
ENGLISH	12.06	12.08	17.00	17.67	11.19	18.00	0.10	0.16	0.20	0.04	0.22	0.15	0.03	0.03	0.04	0.22	0.15	0.03	0.03
MATH	16.80	15.14	26.31	18.65	18.56	26.10	0.62	0.91	0.59	1.42	1.22	0.03	0.03	0.03	1.42	1.22	0.03	0.03	0.03

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 12 FTG '8Y SEX)

	ALL (N=516) M (N=322) F (N=194)		E (N=343) M (N=213) F (N=130)		C1 (N=110) M (N=68) F (N=42)		C2 (N=64) M (N=41) F (N=22)		ALL M VS F	C1 M VS F	C2 M VS F	E M VS F
ENGLISH	12.10	18.85	13.18	18.56	9.82	16.97	10.68	24.94	4.35***	2.66***	2.46*	2.76**
MATH	17.66	15.60	16.43	15.02	19.22	15.61	20.73	19.31	1.31	1.11	0.25	0.74

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 13 16 PF BY ATTRITION STATUS

	WITHDREW (N=201)	CONTINUED (N=253)	WITHDREW VS CONTINUED
A	5.04	5.32	1.40
B	3.84	3.46	2.40*
C	5.06	5.41	1.81
E	6.65	6.57	0.44
F	5.39	5.60	1.05
G	4.76	5.01	1.47
H	4.93	5.16	1.22
I	5.62	5.94	1.79
L	5.84	5.98	0.72
M	6.18	6.52	1.84
N	5.76	5.49	1.50
O	5.35	5.10	1.29
Q1	5.27	5.15	0.60
Q2	5.94	5.88	0.34
Q3	4.89	4.92	0.16
Q4	6.05	5.68	1.94

* Significant at the .05 level ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 14 SELF-RATING SCALE BY ATTRITION STATUS

	WITHDREW (N=168)	CONTINUED (N=237)	WITHDREW VS CONTINUED
A	6.59	6.89	1.41
B	6.15	5.88	0.85
C	6.23	6.50	1.22
E	5.50	5.45	0.26
F	5.54	5.58	0.17
G	5.66	5.86	0.99
H	6.46	6.37	0.42
I	4.94	4.95	0.04
L	3.74	3.43	1.57
M	4.22	4.09	0.70
N	5.16	5.24	0.42
O	5.01	4.60	1.80
Q1	5.82	5.59	0.97
Q2	6.13	5.78	1.92
Q3	6.00	6.31	1.64
Q4	4.69	4.62	0.30

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 15 DEVIATION SCORE BY ATTRITION STATUS

	WITHDREW (N=151)	CONTINUED (N=225)	WITHDREW VS CONTINUED
A	2.47	2.41	0.32
B	2.58	2.75	0.49
C	2.29	2.36	0.35
E	2.26	2.25	0.08
F	2.34	2.21	0.73
G	2.08	1.94	0.89
H	2.28	2.18	0.55
I	2.14	2.33	1.02
L	2.63	3.01	1.80
M	2.51	2.78	1.33
N	1.99	2.04	0.34
O	2.48	2.30	0.91
Q1	2.14	2.59	2.52*
Q2	1.93	1.73	1.20
Q3	2.09	2.08	0.07
Q4	2.38	2.36	0.08

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 16 FIG ALL - BY ATTRITION STATUS

	WITHDREW (N=243)	CONTINUED (N=273)	WITHDREW VS CONTINUED
ENGLISH	13.84	15.47	1.10
MATH	16.38	17.08	0.44

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 17 FTG GROUP E - BY ATTRITION STATUS

	WITHDREW (N=162)	CONTINUED (N=181)	WITHDREW VS CONTINUED
ENGLISH	15.64	15.26	0.21
MATH	15.03	15.83	0.00

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 18 FTG GROUP C₁ BY ATTRITION STATUS

	WITHDREW (N=53)	CONTINUED (N=57)	WITHDREW VS CONTINUED
ENGLISH	9.06	15.27	2.51*
MATH	15.03	19.38	1.31

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 19 FTG GROUP C₂ - BY ATTRITION STATUS

	WITHDREW (N=28)	CONTINUED (N=35)	WITHDREW VS CONTINUED
ENGLISH	13.00	16.84	0.72
MATH	22.56	19.00	0.61

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 20 16 PF, GROUP E-BY ATTRITION STATUS

	WITHDREW (N=139)	CONTINUED (N=165)	WITHDREW VS CONTINUED
A	5.12	5.35	0.98
B	3.88	3.39	2.47*
C	5.16	5.41	1.06
E	6.73	6.53	0.85
F	5.24	5.58	1.37
G	4.81	4.85	0.20
H	4.88	5.25	1.54
I	5.57	6.14	2.54*
L	5.86	6.21	1.45
M	6.06	6.56	2.21*
N	5.86	5.47	1.78
O	5.32	4.82	2.21*
Q1	5.26	5.10	0.67
Q2	6.07	5.88	0.85
Q3	4.82	4.84	0.11
Q4	6.14	5.72	1.84

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 21 16 PF GROUP C1 - BY ATTRITION STATUS

	WITHDREW (N= 41)	CONTINUED (N= 54)	WITHDREW VS CONTINUED
A	4.93	5.37	0.96
B	3.78	3.46	0.93
C	4.85	5.48	1.50
E	6.34	6.41	0.14
F	5.63	5.44	0.50
G	4.78	5.39	1.55
H	4.83	4.93	0.23
I	5.71	5.54	0.48
L	5.95	5.85	0.25
M	6.29	6.41	0.28
N	5.68	5.26	1.23
O	5.41	5.63	0.50
Q1	5.12	5.02	0.30
Q2	5.34	5.85	1.45
Q3	4.98	5.06	0.22
Q4	5.88	5.61	0.63

* Significant at the .05 level. ** Significant at the .01 level. ***Significant at the .001 level.

TABLE 22 16 PF GROUP C2 - BY ATTRITION STATUS

	WITHDREW (N= 21)	CONTINUED (N=24)	WITHDREW VS CONTINUED
A	4.81	5.09	0.51
B	3.71	3.79	0.18
C	4.81	5.29	0.78
E	6.71	6.97	0.43
F	5.95	5.97	0.03
G	4.33	5.15	1.77
H	5.38	5.09	0.56
I	5.76	5.62	0.25
L	5.52	5.09	0.81
M	6.81	6.53	0.59
N	5.29	6.09	1.09
O	5.38	5.62	0.37
Q1	5.62	5.65	0.05
Q2	6.24	5.91	0.69
Q3	5.19	5.06	0.25
Q4	5.81	5.65	0.27

* Significant at the .05 level. Significant at the .01 level. *** Significant at the .001 level.

TABLE 23 SELF-RATING SCALE - GROUP E

	WITHDREW (N=120)	CONTINUED (N=155)	WITHDREW VS CONTINUED
A	6.74	7.07	1.29
B	5.96	5.80	0.90
C	6.23	6.75	1.85
E	5.51	5.43	0.33
F	5.52	5.56	0.12
G	5.58	5.83	1.05
H	6.40	6.42	0.06
I	5.01	4.99	0.08
L	3.83	3.35	1.97*
M	4.17	3.98	0.88
N	5.12	5.28	0.68
O	5.15	4.43	2.50*
Q1	5.79	5.57	0.74
Q2	6.02	5.86	0.72
Q3	5.98	6.28	1.31
Q4	4.71	4.61	0.36

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 24 SELF-RATING SCALE - GROUP C1

	WITHDREW (N= 32)	CONTINUED (N= 49)	WITHDREW VS CONTINUED
A	6.23	6.55	0.77
B	6.94	6.17	0.51
C	6.20	6.06	0.30
E	5.54	5.62	0.20
F	5.50	5.38	0.27
G	5.76	5.71	0.13
H	6.54	6.34	0.44
I	4.50	5.09	1.11
L	3.41	3.42	0.01
M	4.64	4.25	1.10
N	5.14	5.25	0.25
O	4.79	4.89	0.20
Q1	5.86	5.20	1.16
Q2	6.40	5.71	1.89
Q3	6.03	6.25	0.52
Q4	4.62	4.81	0.42

* Significant at the .05 level, ** Significant at the .01 level. ***Significant at the .001 level.

TABLE 25 SELF-RATING SCALE - GROUP C2

	WITHDREW (N= 16)	CONTINUED (N= 33)	WITHDREW VS CONTINUED
A	6.16	6.53	0.49
B	6.00	5.85	0.30
C	6.29	6.02	0.51
E	5.33	5.28	0.09
F	5.74	5.98	0.26
G	6.12	6.18	0.11
H	6.71	6.19	0.83
I	5.35	4.58	1.23
L	3.71	3.84	0.22
M	3.71	4.40	1.30
N	5.48	5.01	1.04
O	4.45	4.94	0.86
Q1	5.97	6.22	0.43
Q2	6.38	5.54	1.71
Q3	6.16	6.55	0.78
Q4	4.68	4.40	0.49

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 26 DEVIATION SCORE - GROUP E

	WITHDREW (N=107)	CONTINUED (N=144)	WITHDREW VS CONTINUED
A	2.46	2.52	0.29
B	2.31	2.75	1.92
C	2.24	2.41	0.73
E	2.27	2.19	0.39
F	2.50	2.31	0.82
G	2.02	1.98	0.20
H	2.41	2.20	0.97
I	2.07	2.42	1.46
L	2.62	3.16	2.06*
M	2.54	2.92	1.47
N	1.97	2.14	0.84
O	2.51	2.29	0.98
Q ₁	2.17	2.73	2.49*
Q ₂	1.87	1.75	0.61
Q ₃	2.18	2.04	0.72
Q ₄	2.42	2.49	0.29

* Significant at the .05 level. ** Significant at the .01 level. ***Significant at the .001 level.

TABLE 27 DEVIATION SCORE - GROUP C1

	WITHDREW (N=29)	CONTINUED (N=48)	WITHDREW VS CONTINUED
A	2.40	2.07	0.77
B	3.46	3.13	0.21
C	2.47	2.40	0.17
E	1.88	2.44	1.67
F	1.89	2.00	0.33
G	2.00	2.00	0.01
H	2.07	2.41	0.90
I	2.41	2.09	0.71
L	2.63	3.10	0.89
M	2.28	2.42	0.38
N	2.07	1.72	1.07
O	2.40	2.55	0.34
Q1	2.14	2.45	0.81
Q2	2.00	1.80	0.60
Q3	1.76	2.22	1.40
Q4	2.40	2.34	0.13

* Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 28 DEVIATION SCORE - GROUP C2

	WITHDREW(N=15)	CONTINUED (N= 33)	WITHDREW VS CONTINUED
A	2.71	2.43	0.46
B	2.81	2.21	0.94
C	2.33	2.07	0.50
E	2.91	2.20	1.27
F	2.07	2.05	0.04
G	2.67	1.65	1.87
H	1.71	1.78	0.17
I	2.05	2.30	0.52
L	2.63	2.25	0.60
M	2.74	2.70	0.07
N	1.97	2.10	0.29
O	2.39	2.03	0.70
Q1	1.87	2.16	0.62
Q2	2.18	1.55	1.30
Q3	2.06	2.07	0.02
Q4	2.01	1.83	0.37

* Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 29 16 PF - STUDENTS WHO WITHDREW

	ALL (N=201)	E (N=139)	C ₁ (N=41)	C ₂ (N=21)	E vs C ₁	E vs C ₂	C ₁ vs C ₂
A	5.04	5.12	4.93	4.81	0.43	0.71	0.23
B	3.84	3.88	3.78	3.71	0.33	0.43	0.15
C	5.03	5.16	4.85	4.81	0.86	0.62	0.07
E	6.67	6.73	6.34	6.71	1.04	0.04	0.64
F	5.38	5.24	5.63	5.95	1.17	1.29	0.54
G	4.76	4.81	4.78	4.33	0.10	1.31	1.02
H	4.89	4.88	4.83	5.38	0.16	1.08	1.95
I	5.60	5.57	5.71	5.76	0.43	0.43	0.11
L	5.85	5.86	5.95	5.52	0.21	0.75	0.83
M	6.17	6.06	6.29	6.81	0.66	1.77	1.05
N	5.77	5.86	5.68	5.29	0.55	0.99	0.64
O	5.37	5.32	5.41	5.38	0.24	0.10	0.05
O ₁	5.28	5.26	5.12	5.62	0.48	0.67	0.90
O ₂	5.94	6.07	5.34	6.24	2.31*	0.33	1.61
Q ₃	4.89	4.82	4.98	5.19	0.52	0.91	0.46
O ₄	6.06	6.14	5.88	5.81	0.77	0.61	0.11

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 30 16 PF - STUDENTS WHO CONTINUED

	ALL (N=253)	E (N=165)	C ₁ (N=54)	C ₂ (N=34)	E vs C ₁	E vs C ₂	C ₁ vs C ₂
A	5.31	5.35	5.37	5.09	0.08	0.63	0.62
B	3.46	3.39	3.46	3.79	0.28	1.30	0.91
C	5.43	5.41	5.48	5.29	0.22	0.32	0.44
E	6.55	6.53	6.41	6.97	0.36	1.13	1.19
F	5.62	5.58	5.44	5.97	0.46	0.92	1.13
G	5.00	4.85	5.39	5.15	1.76	0.84	0.58
H	5.18	5.25	4.93	5.09	0.97	0.47	0.39
I	5.95	6.14	5.54	5.62	2.28*	1.24	0.19
L	5.97	6.21	5.85	5.09	1.20	2.92**	1.82
M	6.53	6.56	6.41	6.53	0.50	0.09	0.32
N	5.49	5.47	5.26	6.00	0.81	1.40	1.84
O	5.09	4.82	5.63	5.62	2.74**	1.98*	0.03
Q1	5.15	5.10	5.02	5.65	0.25	1.52	1.50
Q2	5.88	5.88	5.85	5.91	0.12	0.09	0.18
Q3	4.91	4.84	5.06	5.06	0.74	0.57	0.01
Q4	5.68	5.72	5.61	5.65	0.31	0.19	0.08

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 31 SELF-RATING SCALE - STUDENTS WHO WITHDREW

	ALL (N=168)	E (N=120)	C ₁ (N=32)	C ₂ (N=16)	E vs C ₁	E vs C ₂	C ₁ vs C ₂
A	6.60	6.74	6.23	6.16	1.35	0.86	0.11
B	6.15	5.96	6.94	6.00	0.66	0.09	0.60
C	6.20	6.23	6.20	6.29	0.07	0.14	0.17
E	5.49	5.51	5.54	5.33	0.08	0.32	0.34
F	5.53	5.52	5.50	5.74	0.06	0.26	0.28
G	5.65	5.58	5.76	6.12	0.52	1.08	0.65
H	6.45	6.40	6.54	6.71	0.36	0.53	0.27
I	4.96	5.01	4.50	5.35	1.12	0.59	1.25
L	3.74	3.83	3.41	3.71	1.15	0.22	0.50
M	4.20	4.17	4.64	3.71	1.44	1.03	1.89
N	5.13	5.12	5.14	5.48	0.07	0.91	0.68
O	5.03	5.15	4.79	4.45	0.80	1.37	0.57
Q ₁	5.82	5.79	5.86	5.97	0.16	0.39	0.18
Q ₂	6.12	6.02	6.40	6.38	1.23	0.80	0.04
Q ₃	6.00	5.98	6.03	6.16	0.13	0.38	0.24
Q ₄	4.72	4.71	4.62	4.68	0.22	0.07	0.10

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 32 SELF-RATING SCALE - STUDENTS WHO CONTINUED

	ALL (N=236)	E (N=155)	G ₁ (N=48)	G ₂ (N=33)	E vs G ₁	E vs G ₂	C ₁ vs C ₂
A	6.88	7.07	6.55	6.53	1.76	1.24	0.03
B	5.88	5.80	6.17	5.85	1.38	0.26	1.02
C	6.52	6.75	6.06	6.02	1.79	1.86	0.07
E	5.46	5.43	5.62	5.28	0.65	0.49	0.93
F	5.58	5.56	5.38	5.98	0.58	0.97	1.28
G	5.86	5.83	5.71	6.18	0.41	1.05	1.21
H	6.37	6.42	6.34	6.19	0.22	0.62	0.35
I	4.94	4.99	5.09	4.58	0.27	1.14	1.10
L	3.43	3.35	3.42	3.84	0.24	1.42	1.06
M	4.11	3.98	4.25	4.40	1.02	1.16	0.37
N	5.25	5.28	5.25	5.01	0.11	0.84	0.64
O	4.59	4.43	4.89	4.94	1.18	1.30	0.10
Q1	5.59	5.57	5.20	6.22	0.86	1.52	1.90
Q2	5.79	5.86	5.71	5.54	0.49	1.07	0.47
Q3	6.31	6.28	6.25	6.55	0.13	0.91	0.83
Q4	4.60	4.61	4.81	4.40	0.61	0.55	0.94

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 33 DEVIATION SCORES - STUDENTS WHO WITHDREW

	ALL (N= 151)	E (N=107)	C ₁ (N=29)	C ₂ (N=15)	E vs C ₁	E vs C ₂	C ₁ vs C ₂
A	2.47	2.46	2.40	2.71	0.14	0.46	0.48
B	2.58	2.31	3.46	2.81	0.73	0.83	0.39
C	2.29	2.24	2.47	2.33	0.66	0.19	0.25
E	2.26	2.27	1.88	2.91	1.39	1.31	2.01*
F	2.34	2.50	1.89	2.07	2.10*	0.75	0.32
G	2.08	2.02	2.00	2.67	0.07	1.35	1.28
H	2.28	2.41	2.07	1.71	0.98	1.81	0.78
I	2.14	2.07	2.41	2.05	0.80	0.05	0.65
L	2.63	2.62	2.63	2.63	0.02	0.00	0.01
M	2.51	2.54	2.28	2.74	0.76	0.34	0.75
N	1.99	1.97	2.07	1.97	0.31	0.01	0.21
O	2.48	2.51	2.40	2.39	0.30	0.27	0.02
Q ₁	2.14	2.17	2.14	1.87	0.08	0.70	0.57
Q ₂	1.93	1.87	2.00	2.18	0.39	0.68	0.35
Q ₃	2.09	2.18	1.76	2.06	1.43	0.23	0.52
Q ₄	2.38	2.42	2.40	2.01	0.05	0.94	0.73

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 34 DEVIATION SCORES - STUDENTS WHO CONTINUED

	ALL (N=225)	E (N=144)	C ₁ (N=48)	C ₂ (N=33)	E vs C ₁	E vs C ₂	C ₁ vs C ₂
A	2.41	2.52	2.07	2.43	1.52	0.27	0.92
B	2.75	2.75	3.13	2.21	1.13	1.74	2.32*
C	2.36	2.41	2.40	2.07	0.01	1.06	0.94
E	2.25	2.19	2.44	2.20	0.90	0.02	0.60
F	2.21	2.31	2.00	2.05	1.15	0.96	0.16
G	1.94	1.98	2.00	1.65	0.07	1.04	0.92
H	2.18	2.20	2.41	1.78	0.80	1.66	2.08*
I	2.33	2.42	2.09	2.30	1.15	0.36	0.58
L	3.01	3.16	3.10	2.25	0.16	2.46*	1.92
M	2.78	2.92	2.42	2.70	1.60	0.57	0.64
N	2.04	2.14	1.72	2.10	2.06*	0.14	1.38
O	2.30	2.29	2.55	2.03	0.79	0.75	1.21
Q1	2.59	2.73	2.46	2.16	0.89	1.87	0.78
Q2	1.73	1.75	1.80	1.55	0.23	0.71	0.78
Q3	2.08	2.04	2.22	2.07	0.73	0.11	0.44
Q4	2.36	2.49	2.34	1.83	0.52	1.94	1.34

* Significant at the .05 level. ** Significant at the .01 level. *** Significant at the .001 level.

TABLE 35 FTG - STUDENTS WHO WITHDREW

	ALL (N=243)	E (N=162)	C ₁ (N=53)	C ₂ (N=28)	E VS C ₁	E VS C ₂	C ₁ VS C ₂
ENGLISH	13.84	15.64	9.06	13.00	2.95**	0.60	0.87
MATH	16.38	15.83	15.03	22.56	0.27	1.29	1.33

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 36 FIG - STUDENTS WHO CONTINUED

	ALL (N=273)	E (N=181)	C ₁ (N=57)	C ₂ (N=35)	E VS C ₁	E VS C ₂	C ₁ VS C ₂
ENGLISH	15.47	15.26	15.27	16.84	0.01	0.45	0.42
MATH	17.08	15.83	19.38	19.00	1.47	0.95	0.10

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.

TABLE 1 16 PF - ALL STUDENTS

Table 1 summarizes, by treatment group, the performance of all students on the 16 PF test. Inspection of the mean scores for variable L reveals the C₂ group to measure significantly below the other two groups, in spite of the fact that all three groups scored within the average range. The difference between the C₂ and the E groups was significant at the .01 level, and the difference between C₂ and C₁ was significant at the .05 level. The only other variable which revealed a significant difference was variable O. On this variable, the E group measured lower than C₁, a difference that was significant at the .05 level. Variable B was the only one with a below-average mean for any of the groups.

TABLE 2 16 PF - RACE

Table 2 summarizes, by treatment group and race, the performance of all students on the 16 PF test. Inspection of the table reveals many significant differences between mean scores when race alone is the factor, or when race within a treatment group is considered. Six variables showed significant differences between the mean scores for White and Black students. Three (B, E, and Q₃) were significant at the .05 level, one (Q₂) at the .01 level, and two (G and I) at the .001 level. One variable (M) revealed a mean score with a significant difference (.05) between White and Spanish students. Two variables (G and Q₂) revealed significant differences between the mean scores for Black and Spanish students. The difference for variable G was significant at the .05 level, and the difference for variable Q₂ was significant at the .001 level. The table shows that when the treatment is held constant, 15 of the mean difference scores reach statistical significance, while 11 of the scores reach significance when race is held constant.

TABLE 3 16 PF - SEX

Table 3 summarizes, by treatment group and sex, the performance of all students on the 16 PF test. When considering sex alone, six variables reached statistical significance. Variable O was significant at the .05 level, variable G at the .01 level, and variables E, I, Q₂ and Q₄ at the .001 level. Within all three treatment groups, females scored higher than males on variable I, a difference that was significant beyond the .001 level. Males scored significantly higher than females on variable E in all three treatment groups.

TABLE 4 SELF-RATING SCALE - ALL STUDENTS

Table 4 summarizes, by treatment group, the performance of all students on the Self-Rating Scale. Inspection of the table reveals that the mean difference between the E and C₁ groups on variable A was the only one to reach significance. The E group measured higher than C₁, a difference which is significant at the .05 level.

TABLE 5 SELF-RATING SCALE - RACE

Table 5 summarizes, by treatment group and race, the performance of all students on the Self-Rating Scale. Inspection of the table reveals many differences between races reached statistical significance. Four variables reached significance when White and Black students were compared. Variables F and G were significant at the .05 level, and variables B and L were significant at the .01 level. In comparing White and Spanish students, four variables (I, N, O and Q₁) were significant at the .05 level. The comparison between Black and Spanish students revealed three variables (B, C, and I) were significant at the .05 level. When treatment was held constant, 15 of the scores reached statistical significance (.05 or .01), while only five of the scores reached significance when race was held constant.

TABLE 6 SELF-RATING - SEX

Table 6 summarizes, by treatment group and sex, the performance of all students on the Self-Rating Scale. Inspection of the table reveals differences between males and females reached statistical significance on four variables. Males scored significantly higher than females on variables E and Q_2 (at the .05 level) N (at the .01 level) and C (at the .001 level). In the E group, males scored higher than females on variables C (at the .001 level) and N (at the .05 level). In group C_1 , males scored higher than females on variables H (at the .05 level) and Q_2 (at the .01 level). For the C_2 group, the females scored higher than the males on variable A, a difference which was significant at the .05 level.

TABLE 7 DEVIATION SCORE - ALL STUDENTS

Table 7 summarizes, by treatment group, the Deviation scores for all students. On variable H, the C_2 group scored below the other two groups, a difference which was significant at the .05 level. The E group was higher than the C_1 group on variable F (significant at the .05 level) and on variable Q_4 the E group was higher than the C_2 group (significant at the .05 level). Variable L had very high Deviation scores by groups E and C_1 , although C_1 Deviation score on variable B was the highest.

TABLE 8 DEVIATION SCORE - RACE

Table 8 summarizes, by treatment group and race, the Deviation scores of all students. On variable B, the Black students had a larger Deviation score than the White students (significant at the .01 level) and a larger score than the Spanish students (significant at the .05 level). On variable Q_1 , the Spanish students had a larger score than both the White students and the Black students (significant at the .05 level). The table shows that when race is held constant, 10 mean differences reach statistical significance, whereas 9 mean differences reach significance when treatment is held constant.

TABLE 9 DEVIATION SCORE - SEX

Table 9 summarizes, by treatment group and sex, the Deviation score of all students. Sex differences were found to reach significance for variables E, F and G at the .05 level, (females scoring lower) and variable I, at the .01 level, with males scoring lower. In the E group, females scored lower than males on variable F (significant at the .01 level) but higher on variable I (significant at the .05 level). In C₁, females scored lower on variable G (significant at the .05 level). In C₂, males scored lower on variable I (significant at the .001 level) and L (significant at the .05 level).

TABLE 10 FTG - ALL STUDENTS

Table 10 summarizes, by treatment group, the performance of all students on the FTG. Inspection of the table reveals that although C₂ had higher percentile scores in English and Mathematics, none of the difference reached statistical significance (.05 level).

TABLE 11 FTG - RACE

Table 11 summarizes, by treatment and race, the performance of all students on the FTG. Inspection of the table reveals that as a group, the Spanish students scored highest on English and Mathematics, and the Black students scored lowest. Significant differences were reached between the Black and Spanish students on the FTG (English at the .05 level and Mathematics at the .01 level). The difference between Black and White students reached significance on the English test (.01 level).

TABLE 12 FTG - SEX

Table 12 summarizes, by treatment and sex, the performance of all students on the FTG. As a group, females scored higher than males on the English test (significant at the .001 level) but showed no statistical difference on the Mathematics test. Within the treatment groups, females scored higher than males on the English test. There were no differences between the sexes on the Mathematics test which were statistically significant.

TABLE 13 16 PF - ATTRITION

Table 13 summarizes, by attrition status, the performance of all students on the 16 PF test. Inspection of the table reveals that the students who withdrew from college scored higher than the students who continued in college on variable B (significant at the .05 level) although both groups scored below average on that variable. Both groups scored above average on variable E, although the difference between the two groups was not significant.

TABLE 14 SELF-RATING SCALE - ATTRITION

Table 14 summarizes, by attrition status, the performance of all students on the Self-Rating Scale. The table reveals that the two groups did not significantly differ on any of the 16 variables measured.

TABLE 15 DEVIATION SCORE - ATTRITION

Table 15 summarizes, by attrition status, the Deviation scores for all students. Inspection of the table reveals that the students who continued in college had a higher Deviation score than the students who withdrew from college on variable Q_1 , a difference which reached statistical significance at the .05 level. This was the only variable which showed a statistically significant difference between the two groups.

TABLE 16 FTG - ATTRITION

Table 16 summarizes, by attrition status, the performance of all students on the FTG. Although the students who continued in college had higher percentile scores neither of the differences reached a level of statistical significance.

TABLE 17 FTG - E GROUP AND ATTRITION

Table 17 summarizes, by attrition status, the performance of all students in the E treatment group on the FTG. Inspection of the table reveals that neither of the differences between the two groups reached statistical significance.

TABLE 18 FTG - C₁ GROUP AND ATTRITION

Table 18 summarizes, by attrition status, the performance of all students in the C₁ treatment group on the FTG. Inspection of the table reveals that although the student who continued in college scored higher on both segments of the test than those who withdrew, only the difference between the two groups on the English test reached statistical significance (at the .05 level).

TABLE 19 FTG - C₂ GROUP AND ATTRITION

Table 19 summarizes, by attrition status, the performance of all students in the C₂ treatment group on the FTG. Inspection of the table reveals that neither of the differences between the two groups reached statistical significance.

TABLE 20 16 PF - E GROUP AND ATTRITION

Table 20 summarizes, by attrition status, the performance of all students in the E treatment group on the 16 PF test. Inspection of the table reveals that on variables I and M, the students who continued in college scored higher than those who withdrew from college, a difference which was significant at the .05 level. On variables B and O, the latter group had higher scores than the former group, a difference which was significant at the .05 level. On variable B, both groups scored below average. On variable E, both groups scored above average.

TABLE 21 16 PF - C₁ GROUP AND ATTRITION

Table 21 summarizes by attrition status, the performance of all students in the C₁ treatment group on the 16 PF test. Inspection of the table reveals that although both groups were below average on variable B, and above average on variable E, none of the differences on any of the 16 variables reached statistical significance.

TABLE 22 16 PF - C₂ GROUP AND ATTRITION

Table 22 summarizes, by attrition status, the performance of all students in the C₂ treatment group on the 16 PF test. Inspection of the table reveals that although both groups scored below average on variable B, and above average on variables E and M, none of the differences on any of the 16 variables reached statistical significance.

TABLE 23 SELF - RATING SCALE - E GROUP AND ATTRITION

Table 23 summarizes, by attrition status, the performance of all students in the E treatment group on the Self-Rating Scale. Inspection of the table reveals that the students who withdrew from college had higher scores than the students who continued in college on variables L and O. The difference between the scores on these two variables were significant at the .05 level.

TABLE 24 SELF-RATING SCALE - C₁ GROUP AND ATTRITION

Table 24 summarizes, by attrition status, the performance of all students in the C₁ treatment group on the Self-Rating Scale. Inspection of the table reveals that none of the differences between the two groups on any of the 16 variables reached statistical significance.

TABLE 25 SELF-RATING SCALE - C₂ GROUP AND ATTRITION

Table 25 summarizes, by attrition status, the performance of all students in the C₂ treatment group on the Self-Rating Scale. Inspection of the table reveals that none of the differences between the two groups on any of the 16 variables reached statistical significance.

TABLE 26 DEVIATION SCORE - E GROUP AND ATTRITION

Table 26 summarizes, by attrition status, the Deviation scores of all students in the E treatment group. Inspection of the table reveals that the students who withdrew from college had lower Deviation scores than the students who continued in college on variables L and Q₁. The differences on both of the variables were significant at the .05 level.

TABLE 27 DEVIATION SCORE - C₁ GROUP AND ATTRITION

Table 27 summarizes, by attrition status, the Deviation scores of all students in the C₁ treatment group. Inspection of the table reveals that none of the differences between the two groups on any of the 16 variables reached statistical significance.

TABLE 28 DEVIATION SCORE - C₂ GROUP AND ATTRITION

Table 28 summarizes, by attrition status, the Deviation scores of all students in the C₂ treatment group. Although the students who withdrew from college had higher Deviation scores on 11 of the variables, none of the differences between the two groups on any of the 16 variables reached statistical significance.

TABLE 29 16 PF - STUDENTS WHO WITHDREW BY GROUPS

Table 29 summarizes, by treatment group, the performance of all students who withdrew from college on the 16 PF test. Inspection of the table reveals that all three treatment groups were below average on variable B and above average on variable E. However, only the difference between the E and C₁ group on variable Q₂ reached statistical significance (at the .05 level).

TABLE 30 16 PF - STUDENTS WHO CONTINUED BY GROUPS

Table 30 summarizes, by treatment group, the performance of all students who continued in college on the 16 PF test. Inspection of the table reveals that all three groups scored below average on variable B, and above average on variables E and M. On variable O, the E group scored lower than C₁ (significant at the .01 level) and C₂ (significant at the .05 level). On variable I, the E group scored higher than C₁ (significant at the .05 level).

TABLE 31 SELF-RATING SCALE - STUDENTS WHO WITHDREW BY GROUPS

Table 31 summarizes, by treatment group, the performance of all students who withdrew from college on the Self-Rating Scale. Inspection of the table reveals that none of the differences between any of the groups on any of the 16 variables reached statistical significance.

TABLE 32 SELF-RATING SCALE - STUDENTS WHO CONTINUED BY GROUPS

Table 32 summarizes, by treatment group, the performance of all students who continued in college on the Self-Rating Scale. Inspection of the table reveals that none of the differences between any of the groups on any of the 16 variables reached statistical significance.

TABLE 33 DEVIATION SCORE - STUDENTS WHO WITHDREW BY GROUPS

Table 33 summarizes, by treatment group, the Deviation scores of all students who withdrew from college. Inspection of the table reveals that the C₁ group had a lower Deviation score than C₂ on variable E, and lower Deviation score than E group on Variable F. Both of the differences were significant at the .05 level.

TABLE 34 DEVIATION SCORE - STUDENTS WHO CONTINUED BY GROUPS

Table 34 summarizes, by treatment group, the Deviation scores of all students who continued in college. Inspection of the table reveals that the C₂ group had lower Deviation scores than C₁ on variables B and H (both significant at the .05 level). The C₂ group also had a lower Deviation score than the E group on variable L (significant at the .05 level). On variable N, the C₁ group had a lower Deviation score than the E group (significant at the .05 level).

TABLE 35 FTG - STUDENTS WHO WITHDREW BY GROUPS

Table 35 summarizes, by treatment group, the performance of all students who withdrew from college on the FTG. The E group was higher than C₁ on the English test, a difference which was significant at the .01 level.

TABLE 36 FTG - STUDENTS WHO CONTINUED BY GROUPS

Table 36 summarizes, by treatment group, the performance of all students who continued in college on the FTG. Inspection of the table reveals that neither of the differences between the groups reached statistical significance.

COLLEGE STUDENT QUESTIONNAIRE

On November 20, 1969, 441 entering freshmen were administered selected portions of the College Student Questionnaire, along with ten local questions. 92 students from C₁ (English 090), 118 students from C₂ (English 101), and 216 students from E (Community College Studies) were involved in the testing, along with a group of 15 students not enrolled in any English course.

The College Student Questionnaire is designed to provide the college with descriptive data concerning groups of students, and is not intended as an individual student measure or profile. Therefore it was particularly valuable to incorporate this instrument into the Community College Studies experiment so that differences between the three groups could be easily secured and evaluated.

The test is actually composed of two separate instruments. Part 1, which was administered to the previously mentioned group, is designed for entering students (freshmen, transfers). It contains questions about (I) educational and vocational plans and expectations, (II) activities, achievements, and perceptions during secondary school, (III) family background, and (IV) personal attitudes.

An outline of the contents of the College Student Questionnaire Part I is given below.

COLLEGE STUDENT QUESTIONNAIRE

PART I

Section I: Educational and Vocational Plans

1. Basic demographic data: sex, age
2. Status as student: class, residence
3. Educational plans: major, graduate work
4. Vocational plans
5. Financial support
6. Anticipated activities, satisfactions, problems

Section II: Secondary School Information

1. Type, size of secondary school
2. Estimated level of academic achievement
3. Perceptions of various course work
4. Extracurricular activities
5. Perception of motivation for grades
6. .Leisure time activities

Section III: Family Background

1. Location of home and birthplace
2. Parents' status: together, divorced
3. Family size, birth order
4. Parents' occupations
5. Family income
6. Parents' education
7. Racial, ethnic, nationality factors
8. Religious preferences

9. Parents' concern re: respondent's education
10. Political and cultural characteristics

Section IV: Attitudes

1. Respondent's religious preference
2. Instructional preferences
3. Attitudes re: independent from family
4. Attitudes re: independent from peers
5. Political attitudes
6. Attitudes reflecting social conscience
7. Activities reflecting cultural sophistication.

The questionnaire is an untimed instrument, thereby enabling students of varying reading ability to complete all of the items. Each item is intended to provide essentially unique information.

In addition to the item response data, scores on seven brief scales were obtained.

(MG) Motivation for Grades refers to a relatively strong desire--retrospectively reported--to earn good marks in secondary school. High MG scores represent the respondent's belief that others (eg, teachers, classmates) regarded him as a hard worker, that the respondent, in his own estimation, studied extensively and efficiently, was capable of perseverance in school assignments, and considered good grades to be personally important. Low scores indicate lack of concern for high marks in secondary school.

(FS) Family Social Status is a measure of the socioeconomic status of the respondent's parental family. The scale is comprised of four questions, each having nine scaled alternatives. The four items have to do with:

father's occupation, father's education, mother's education, and family income. Father's occupation is given a weight of three. Raw scores may range from 6 through 54.

(FI) Family Independence refers to a generalized autonomy in relation to parents and parental family. Students with high scores tend to perceive themselves as coming from families that are not closely united, as not consulting with parents about important personal matters, as not concerned about living up to parental expectations, and the like. Low scores suggest "psychological" dependence on parents and family.

(PI) Peer Independence refers to a generalized autonomy in relation to peers. Students with high scores tend not to be concerned about how their behavior appears to other students, not to consult with acquaintances about personal matters, and the like. They might be thought of as unsociable, introverted, or inner-directed. Low scores suggest conformity to prevailing peer norms, sociability, extraversion, or other-directedness.

(L) Liberalism is defined as a political-economic-social value dimension, the nucleus of which is sympathy either for an ideology of change or for an ideology of preservation. Students with high scores (liberals) support welfare statism, organized labor, abolition of capital punishment, and the like. Low scores (conservatism) indicate opposition to welfare legislation, to tampering with the free enterprise system, to persons disagreeing with American political institutions, etc.

(SC) Social Conscience is defined as moral concern about perceived social injustice and what might be called "institutional wrongdoing" (as in government, business, unions). High scorers express concern about poverty, illegitimacy, juvenile crime, materialism, unethical

business and labor union practices, graft in government, and the like. Low scores represent reported lack of concern, detachment, or apathy, about these matters.

(CS) Cultural Sophistication refers to an authentic sensibility to ideas and art forms, a sensibility that has developed through knowledge and experience. Students with high scores report interest in or pleasure from such things as wide reading, modern art, poetry, classical music, discussions of philosophies of history, and so forth. Low scores indicate a lack of cultivated sensibility in the general area of the humanities.

Comparative data, based on administrations of the questionnaires at a range of institutions are available for both individual items and scales but were not utilized in this study because the population involved in the experiment was not a normally distributed segment of Miami-Dade entering freshmen. Keeping this in mind, it is not advisable for the tested population to be compared to a normally distributed population for any purposes.

During the testing session, the students were instructed to respond to questions 49 through 200. In addition they dealt with ten local questions, A through J.

The results were machine scored by Educational Testing Service, Princeton, New Jersey and a statistical report was returned which yielded data on individual item responses and the aforementioned scales.